The railroad profit picture: It's **improving** but still far from healthy . . . . . p. 35

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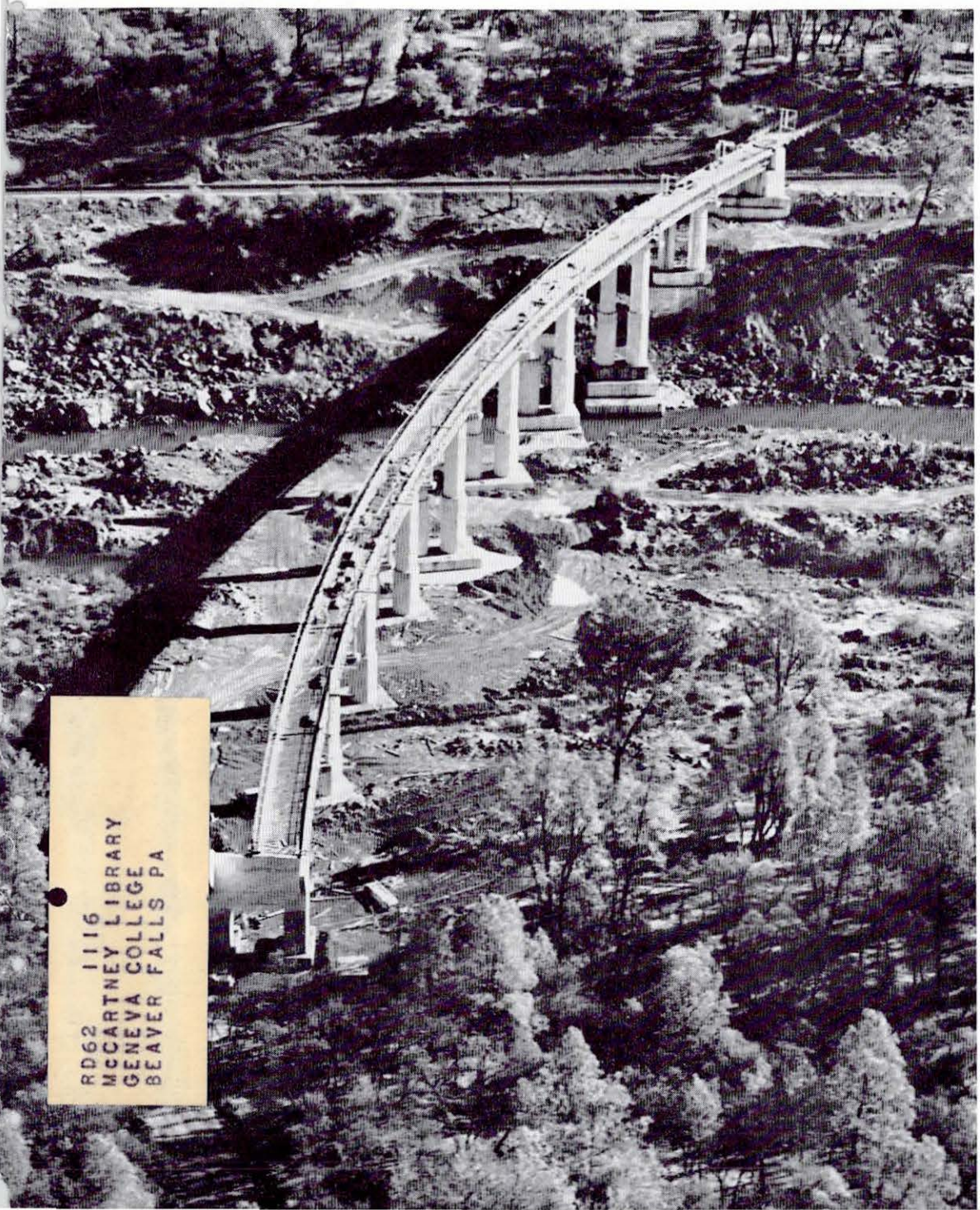
RAILWAY AGE WEEKLY



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BEAVER FALLS PA

WP Opens New Line

p. 14

R. J. TYLER
General Traffic Mgr.
Tube Turns

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RAILWAY AGE

WEEK AT A GLANCE

November 5, 1962 • Vol. 153, No. 19

Diesel-hydraulics: How many, how soon?

Still-incomplete cost data will determine the U.S. future of this combination "race horse and mule." Meanwhile, at least one U.S. builder is known to be eyeing the market .....p. 9

Researchers probe private carriage

How extensive is "do-it-yourself" transport—and how can common carriers win the traffic back? A Northwestern University conference suggested some answers p.11

CP-BRT pact called significant advance

New gains have been made by the Canadian Pacific in the elimination of work rules that produce and promote featherbedding. p.13

WP opens new $40-million Oroville line

The 23-mile job, one of the largest line-change projects in years, replaces a section of line that will be flooded after construction of a dam in the area. p.14

L&N gets big-load box cars

The 6,146-cu-ft cars, just being delivered, are designed for shippers wishing to take advantage of rates providing a reduction for tonnage over the standard minimum. p.18

New container is unveiled

"X-Tainer," a fully compatible freight container system, is being offered to the transportation industry by Xtra, Inc., Boston-based trailer rental firm. p.19

'Rail data central' urged for carriers

A central clearing house for information, it is suggested, would help railroads make more effective use of the various types of data already available to them. p.22

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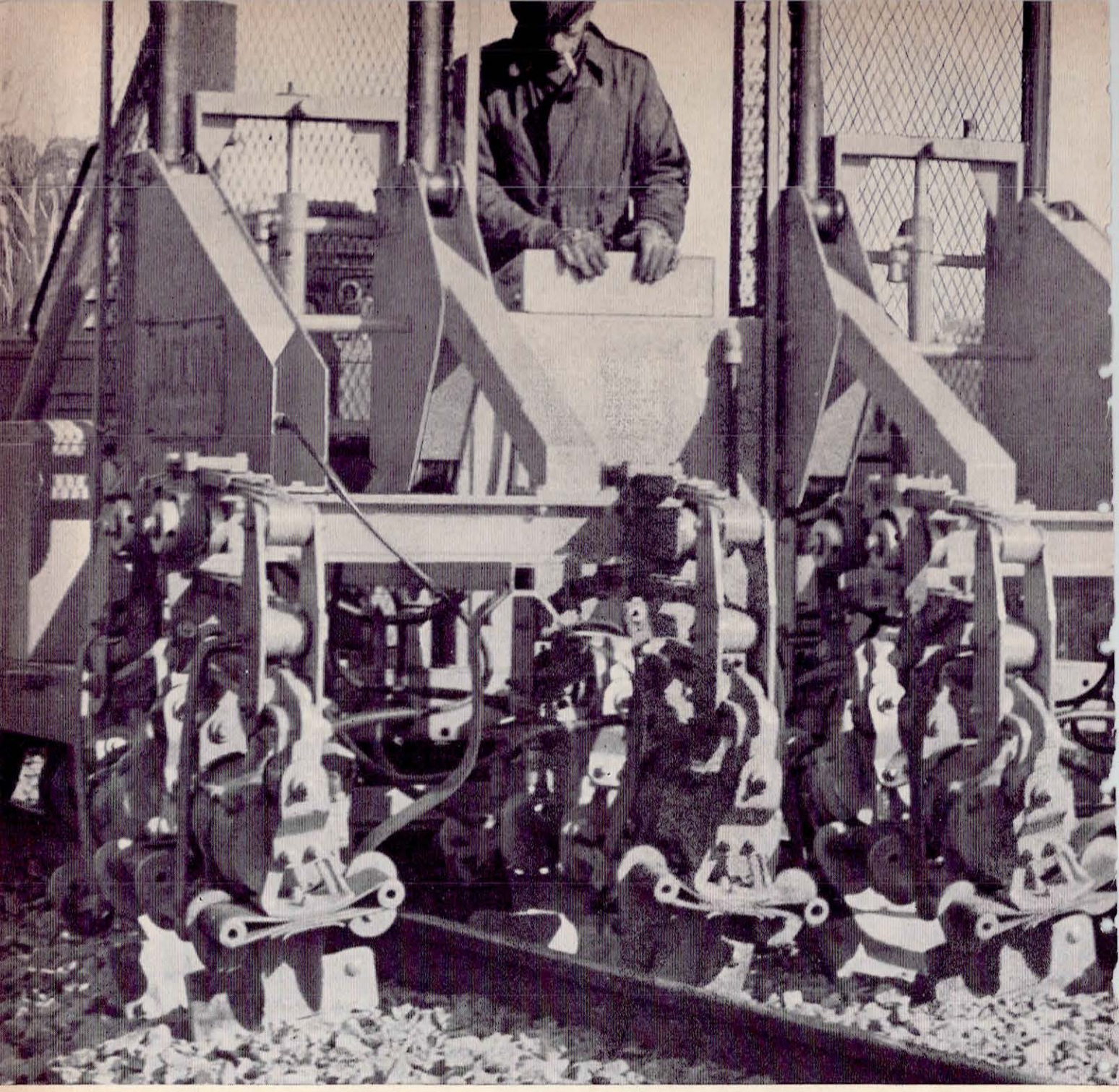

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RAILWAY AGE

WEEK AT A GLANCE

New rack cuts auto-car height

The overall height of loaded tri-level auto cars is reduced by having the rack's middle deck slant toward one side and by offsetting bottom-deck cars toward the opposite side. p.23

D.C. planners give nod to rail transit

A blueprint for an 83-mile, $793-million rail rapid transit system for Washington has been submitted to President Kennedy. Next move is up to Congress p.31

'62: Black ink chases the blues

While admittedly not a great year, 1962 has been a year of rising hope for the railroads as reflected by an expected net income that should range between $400 and $450 million. p.35

The Action Page—Will America wake up now?

The Cuba incident is a dramatic warning that the U.S. must forsake its profligate frivolity in, among other things, transportation and union-management relations. p.38

Short and Significant

Defense Department's freight bill...

will be cut again. Western roads have adopted the 55%-of-first-class rate on military impedimenta which became effective last July in the East and South.

First all-cargo jets for a domestic carrier...

have been ordered by American Airlines—four 80,000-lb capacity planes which are expected to cut operating costs from 12 cents a ton mile to five cents.

Current Statistics

Operating revenues	
6 mos., 1962	$4,703,650,132
6 mos., 1961	4,417,470,000
Operating expenses	
6 mos., 1962	3,713,490,394
6 mos., 1961	3,594,534,970
Taxes	
6 mos., 1962	531,960,577
6 mos., 1961	482,452,262
Net railway operating income	
6 mos., 1962	265,495,659
6 mos., 1961	145,845,950
Net income estimated	
6 mos., 1962	171,000,000
6 mos., 1961	62,000,000
Carloadings revenue freight	
43 wks., 1962	23,997,261
43 wks., 1961	23,664,850
Freight cars on order	
Oct. 1, 1962	11,064
Oct. 1, 1961	10,133
Freight cars delivered	
9 mos., 1962	29,652
9 mos., 1961	25,186
Serviceable cars	
Sept. 1, 1962	1,437,496
Sept. 1, 1961	1,470,420
Cars awaiting repairs	
Sept. 1, 1962	135,257
Sept. 1, 1961	153,570

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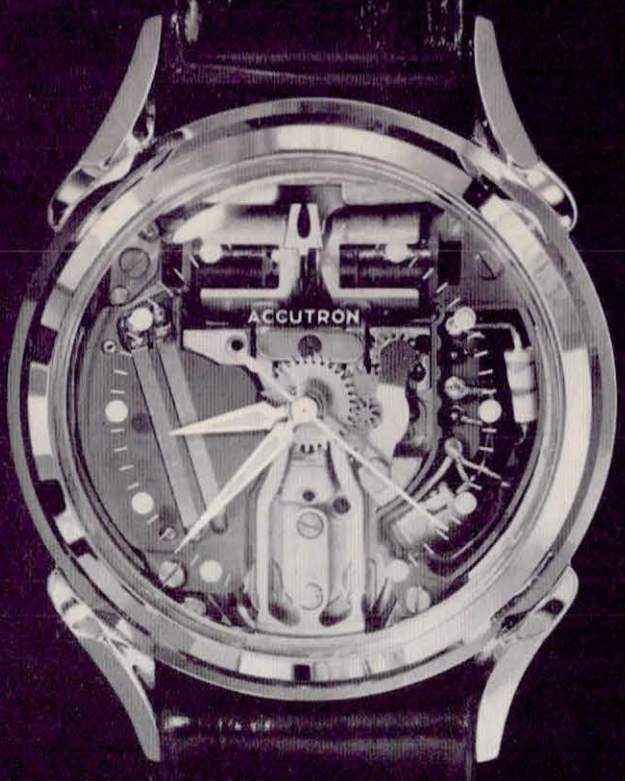

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HOW MANY—HOW SOON?

Diesel-Hydraulics: A Question of Costs

Does the diesel-hydraulic locomotive have a future in the United States? The evidence, collected and interpreted by Railway Age Mechanical Department Editor C. L. Combes, says "yes." Six experimental units have been in service here for a year. They've worked well. More will be ordered—probably by Southern Pacific, although other roads are also interested in the hydraulics' capabilities. But for the hydraulic to become more than a novelty in U.S. railroading, two things have to happen: More complete cost data, based on greater experience with more units, has to be developed; and an American locomotive builder has to come into the market.

How will they perform under U.S. operating conditions? That was the big question to be answered when six 4,000-hp Krauss-Maffei diesel-hydraulic locomotives arrived at Houston, Tex., a year ago on Oct. 28, 1961.

The answer has now been spelled out pretty clearly in separate preliminary reports on their performance by Southern Pacific and Denver & Rio Grande Western. Both roads said that the hydraulics have demonstrated their capacity to expedite high-speed tonnage in mountain territory. More than that, the new motive power was characterized as a combination "race horse and mule"—which implies that they have both speed and pulling power, desirable qualities in locomotives assigned to any domestic high-speed or drag service.

Now the big question is this: What potential do the hydraulics have in the U.S. market?

With about 30,000 diesel-electric units in service in this country, it is doubtful that diesel-hydraulic locomotives will be purchased in quantities that will seriously affect the motive power situation in the next few years. Diesel-electrics will continue to be the major power source, particularly with three domestic builders all offering strong, new high-horsepower contenders.

At the same time, there is no logical reason why the diesel engine prime mover has to be wedded permanently to the electric transmission.

The short term probability is that a sufficient number of diesel-hydraulic locomotives will be obtained to make a more complete evaluation of this type of power. Several railroads are known to have more than an academic interest in them—particularly those roads operating over mountain grades where the hydraulic locomotives' characteristics are particularly advantageous.

The long-term outlook will depend on what cost figures of ownership, operation and maintenance are developed by additional locomotives assigned to regular service under routine maintenance procedures. Only then will railroads be able to make an accurate economic comparison between diesel-hydraulic and diesel-electric locomotives.

With the hydraulics' performance good enough so that there is interest in more, there's speculation as to where the "more" will be obtained. Back in June, Southern Pacific sounded out both U.S. and European locomotive builders to find out who was "interested in bidding" on 21 diesel-hydraulic units (RA, June 25, p. 85). At that time, SP made it clear that it was not seeking bids. It was making an "exploration to determine what the potential for production will be."

While SP has not announced the results of its probing for possible builders, it is known that at least two builders—one of them an American company—are interested in building additional units. At the Locomotive Maintenance Officers Association meeting last Sept. 19, the SP manager of mechanical engineering and research, P. V. Garin, said one American builder and several equipment manufacturers have expressed interest in possible construction of additional hydraulic locomotives and components.

The interest of one American builder has been interpreted as a good sign that the diesel-hydraulic has long-term

WATCHING WASHINGTON WITH WALTER TAFT

• **"BACK-HAUL" RAIL RATES** have been approved by the ICC's decision in I&S No. 7179. They were cleared because "special circumstances" make them "reasonably compensatory," even though they fail to cover out-of-pocket costs, as such costs are computed by formulas of the Commission's Cost Finding Section. Their yields are short of formula requirements by amounts needed to provide returns on investments in road and equipment. The rates were published by southeastern railroads about three years ago to meet competition of private water carriers for coal traffic moving from mines in Alabama, Kentucky, Tennessee and Virginia to plants of the Tampa Electric Co. and General Portland Cement Co. at Tampa, Fla., and Sutton.

AMONG THE "SPECIAL CIRCUMSTANCES" is the availability, for about half of the coal movement, of covered hopper cars, which come to the mine regions with loads of phosphate rock from the Tampa area and which would return there empty if they did not haul the coal. Other "special circumstances" include the nature of the water competition as unregulated transportation, the railroads' showing that the coal traffic has not caused significant increases in train-miles, and evidence indicating that the water carriers have been successful in holding about two thirds of the business.

IN THE COMMISSION'S REPORT, by Commissioner Webb, is a discussion of the "added-traffic" theory of rate making. It leads to a conclusion that the rates in issue "may be approved without invoking the added-traffic theory"—so "it would be inappropriate for us to speculate concerning the circumstances, if any, which might justify approval of rates constructed on that basis." Previously, however, the report said the added-traffic theory "finds little support in Commission reports," though some added-traffic rates of railroads and other regulated carriers "have become effective without specific Commission approval."

THE MARGIN by which the approved rates fail to meet "long-term out-of-pocket costs" is called "small." And the Commission proceeds to emphasize that its refusal to follow the formulas in this case "in no way disparages the improvements that have been made over the years in principles of cost finding." The pending No. 34013 case, which has the development of better cost evidence as an objective, is cited as evidence of the Commission's "continued interest in arriving at proper cost formulas."

SEPARATE OPINIONS came from Chairman Murphy, concurring "in the result," and Commissioner Freas, dissenting in part. The former, joined by Vice-Chairman Walrath, would have found the rates lawful on the basis of "important considerations" other than cost. He complained that the majority "needlessly established an unwise and dangerous precedent" by abandoning the Commission's long-standing position that return on investment is a "necessary factor in the computation of out-of-pocket costs."

COMMISSIONER FREAS said he could not find the rates compensatory "without radically departing from past standards." He conceded that a departure could be due, but thinks it should come in a case like No. 34013—not, as here, "in an isolated case and without adequate explanation."

U.S. market possibilities (it's a safe bet that American railroads would not go overseas to acquire motive power in sufficient quantities to pose any serious threat to the domestic diesel-electric market).

The other builder known to be interested is, of course, Krauss-Maffei, who built the six units now on U.S. rails. K-M representatives have been actively negotiating for an order from Southern Pacific. Obviously, as a recognized reputable builder of European diesel-hydraulic motive power and as producer of the six units in this country, K-M has engineering and production advantages not enjoyed by an American builder.

While these advantages may not be the prime consideration in the selection of a producer, it is probable, in our opinion, that K-M will get an order for additional units. At the same time it also seems likely that an American builder may get an order that will give a domestic producer a toehold on the potential U.S. market. (After all, there is nothing about the hydraulic torque converter and transmission that is beyond the engineering capabilities and production know-how of American industry.)

In advance billing, the diesel-hydraulics were expected to demonstrate certain advantages over diesel-electrics. In actual service they appear to have lived up to their billing. They have produced high adhesion values (33%); they have shown that they can operate at continuous low speed (down to 1 mph); their acceleration characteristics have been labelled "exceptional."

Mechanically, they have done well. The component expected to give the most trouble, the hydraulic transmission, has given the least. Engines have been major troublemakers, but this is not a reflection on their construction or their capabilities—they have been required to operate in severe service under conditions and with fuels for which they were not specifically designed. Other deficiencies have been or will be corrected but such "bugs" are not peculiar to the diesel hydraulics; they are found in every new motive power model, regardless of type and builder.

Southern Pacific has found that "there is nothing outside our maintenance capabilities" in handling the hydraulics.

The future of diesel-hydraulic motive power will be settled on the basis of costs. Economy-minded U.S. railroads will have to be shown that the hydraulic is not only better but also more economical than the electric transmission before the diesel-hydraulic will become any real threat to the diesel-electric—and such an appraisal cannot be made

(Continued on page 27)

Researchers Probe Private Carriage

► **The Story at a Glance: Piggyback service expansion, more aggressively customer-oriented service and drastic rate revision are the best common carrier weapons against traffic inroads by private carriage. Private carriage costs, increasingly, will be "floor rates" from which common carriers will not be able to depart very far in the future. While hardly spreading like an epidemic, private carriage is growing faster than any of the regulated modes (85% of the nation's 12 million trucks are in private carriage) and already accounts for a third of all freight ton-miles moving on highways. Economics of private carriage are especially advantageous to shippers for short hauls. These were a few aspects of the private vs. common carriage controversy brought out to shipper, carrier and government agency representatives at Northwestern University Transportation Center's Conference on Private and Unregulated Transportation at Evanston, Ill., Oct. 29-30.**

Transportation experts and theorists poked hard at the private carrier last week in an attempt to see what kind of a threat he represents and to define and chart the future of private carriage (the shipment of a company's own goods in its own trucks) in the U.S. transportation picture.

Because of the difficulty of getting figures on private carriage (it is not regulated and does not have to file any of the statistics common carriers have to report to government agencies), interest at the conference focused upon the results of a Transportation Center research team's work in getting at the facts. The researchers spent two years and $125,000 digging out the factors involved when a company decides it is better off using its own trucks, what will happen if more companies expand their capacity for handling their own high-value freight (leaving common carriers with low-value and LCL traffic), and what this trend could mean to common carriers.

Dr. Arthur P. Hurter, Jr., and Dr. Walter Y. Oi, economists at the Transportation Center, presented the results of this research. Some of their findings were:

- At least 18,000 companies have fleets of ten trucks or more, but some private fleets are as large as the largest of the common carrier truck fleets.
- That private carriage is relatively more advantageous to shippers for short-haul movements. Research confirmed that existing private carriage is concentrated in the area of 25- to 200-mile shipments.
- That shippers using private carriage tend to use it for that "portion of their demand that is almost always present" and tend to rely on common carriers for excesses that arise in their business cycles. From available evidence, private carriage accounts for an increasing amount of high-value freight as well as high-bulk freight.
- That "the major transportation competition appears to be between motor and rail transportation; private carriage is simply one form of motor freight transportation."

Growth factors cited

- That major reasons for growth of private carriage are: 1) development of modern highways which, 2) have reduced dependence of manufacturers on locations near rail terminals or port facilities; 3) improvement of production techniques that require plant layouts needing more land, thereby necessitating industry moves to the edges of cities; 4) sheer economic advantage in terms of greatly lessened freight costs, and 5) better service in areas ranging from ability to set their own schedules to frequency of service and ability to save on packaging and achieve reductions in damaged goods.
- That the major disadvantages of private carriage are capital investment requirements, managerial time required, growing suspicions that the investment returns are inadequate, plus "very real risks" of increasing average costs on common carrier shipments as erosion of regulated traffic forces rates upward.
- That the growth of private carriage has been largely at the expense of common motor carriage—though this has been within the framework of the fact that absolute ton-mile growth for trucks has been almost four times as great as rail ton-mile increases since 1939.
- That a relative decline in intercity ton-miles for all common carriers occurred between 1939 and 1959. Some 75% of traffic was handled by common carriers in 1939 whereas they handled only 67% of intercity ton-miles in 1959.
- That common carrier trucking and private motor carriage, for the postwar years, have both been growing at about a 9% rate per year—compared to a rail rate of about 2%.
- That private motor transportation is widespread, though, characteristically, occurring with relatively small fleets. The East South Central Region uses private motor carriage more than any other region. The South Atlantic Region also uses it extensively, while the West, Northwest and New England regions use it relatively less.
- That few firms use private carriage for 75% or more of their total annual tonnage. Heaviest users are food, furniture, petroleum, lumber and glass interests.
- That private carriage is not even the single most important mode of transportation used by shippers in most cases.
- That there is some evidence that shippers can be won back to common carriage with the right combination of service and rates.

Kenneth U. Flood, associate professor at the Graduate School of Business Administration, University of Illinois, told the conference about a study of New England industry that he made to determine why decisions had been made for private carriage. His survey revealed that private carriage is on the increase in New England—with 39% of his respondents saying they anticipate an increase in the level of their private carriage activity in the future, while only 3% reported that they expected a decline in this area. To the question, "If common carrier rates were reduced 10%, what per cent of your freight now moving by company trucks would be switched to common carriers?", 83% stated that there would be "no change," while 5% said that they would switch more than 5% of their tonnage to common carriers. Some 50% would not make any change even with a 20% common carrier rate reduction.

Piggyback advantages seen

"A clear distinction existed between medium and long haul," noted Mr. Flood. "The advent of Plan III piggyback, with its 25¢ a mile ramp-to-ramp rate, has caused the only long-haul private truck operator in the whole study to convert. It was found that piggyback service to Chicago and St. Louis from Boston was as good as a two-man driving team could accomplish." Mr. Flood said that in this case private motor carriage had saved the company $160,000 each year over common carriage—and that conver-

The Growth of Private Motor Transport

Extent of Use in Manufacturing by Firm Size, 1957 and 1961

	A	B	C	D	E	F	G	H	I	J	Total
No. of firms	50	86	145	97	152	135	97	96	131	47	1035
Percentage of firms that employ some private motor transport											
1957	48.8	48.2	38.6	40.2	46.1	38.5	34.0	34.4	22.9	27.7	37.7
1961	60.0	58.8	55.2	53.6	54.6	47.4	42.3	47.9	29.0	39.1	48.2
Percentage of firms that ship 10% or more of total freight by private motor transport											
1957	20.0	27.1	30.3	32.0	37.5	30.4	26.8	25.0	16.0	23.4	27.8
1961	20.0	30.6	40.0	45.4	45.4	36.3	33.0	32.3	20.6	23.4	34.5
Average percentage of shipments via private motor transport											
1957	7.7	14.3	18.4	18.3	22.0	14.4	12.1	12.9	9.0	9.9	14.9
1961	9.5	18.1	24.0	23.5	24.3	17.4	13.7	15.8	11.3	12.0	18.1

Lettered columns designate firm-size categories according to annual freight volumes, as follows:

A—1,000,000 tons or more
B—100,000 to 999,999 tons
C— 20,000 to 99,999 tons
D— 10,000 to 19,999 tons
E—4,000 to 9,999 tons
F —2,000 to 3,999 tons
G—1,000 to 1,999 tons
H— 500 to 999 tons
I —100 to 499 tons
J— 0 to 99 tons

Source: Northwestern Transportation Center Survey, 1962.

sion to piggyback had, in seven months, saved the same company $65,636 over the costs of private carriage.

Mr. Flood cited several analyses of industrial traffic that tended to support the thesis that common carriers have better chances of capturing long-haul private carriage tonnage—especially in areas where improved piggyback facilities make the transition to rail easy. "The claim that private carriage is threatening to exterminate common carriage is a lot of nonsense. It is my opinion, in fact, that the growth of private carriage helped awake government and common carrier management to the inadequacy of present for-hire transport service. It helped stimulate the development of piggyback along its cost-oriented pricing scheme. . . . A more personalized service, developed through negotiation, may be the answer to short-haul private trucking. Piggyback has been instrumental in wiping out a large segment of long-haul private trucking. Why not push containerization on medium-haul traffic next? It's bound to succeed if properly implemented." Mr. Flood said that, in his opinion, private carriage had the effect of forcing betterment of common carrier service and that it forced "prices being adjusted to a more realistic basis."

George W. Hilton, of the University of California, told the conference that "the non-competitive character of the transportation industry, plus specific policies of the Congress and the Interstate Commerce Commission, constituted a strong incentive for decline of common carriers relative to private carriage." He cited published rates, rate bureaus, court actions and various acts as being "anti-competitive" in effect, even before the competing modes of transportation appeared. "The motor vehicle is mainly responsible for the long, slow, continual decline of the railroads," he declared. Mr. Hilton pointed out that "in the long run it was the Transportation Act of 1940 which made a great contribution to the decline of common carriers" because "the National Transportation Policy directed the ICC to do something which is impossible: to maintain prosperous conditions in all classes of carriers."

In summary, Mr. Hilton pointed out, "It is very largely the desperate condition of the railroads—particularly in the East—that has rekindled interest in public policy toward transportation. One might prefer that this interest had been motivated by a recognition of the *a priori* objections to present policy, or merely by a desire that the public should have cheaper common carrier service. The latter should be the principal motivation in U.S. transportation policy, merely by application of the ancient Ricardian principle of economics that the public interest is to be identified with the interest of consumers in securing goods and services most cheaply. If this principle has not been responsible for the current interest in transportation policy, it may at least serve to guide Congress in the choice between alternatives. Since there is fairly substantial consensus that the present situation is untenable, the alternatives for public policy are a reduction or abandonment of minimum rate regulation or an extension of the regulation to a substantial number of exempt carriers."

Professor of Transportation Robert A. Nelson of the University of Washington described to the conference the conflicting views of regulated carriage's original justification (protection of the public from the cartel and, oppositely, protection of the cartel from the public) and outlined his own view of what had happened in the regulatory structuring of this nation's common carriers—that Congressional pressures and ICC decisions over the years have "led to what might be regarded as a socialization of the rail rate structure," in order to equalize pressures on agriculture, industry and business in different areas of

the country. "Accordingly, the Supreme Court and the ICC have always considered economic conditions in industry as a factor bearing on the regulation of reasonable rates."

C. Peter Schumaier, of the U.S. Department of Agriculture, described agriculturally exempt motor carriers to the conference audience as "the for-hire carriers who operate exempted by the ICC from all economic and franchise provisions—and also the private trucks engaged in this traffic." He told how the ICC attempted, at first, to restrict the exemptions written into Part II of the Interstate Commerce Act (the Motor Carrier Act of 1935), and how the courts progressively liberalized the exempt commodities."

Citing a survey of 1,500 companies, Mr. Schumaier said exempt carriers were mostly small and that average tonnages in the field were small. He said that the survey revealed that trip-leasing had decreased because of "the complexities of regulations governing the practice."

"Exempt trucking costs appear to be well below common carrier costs," he said. "The 25 carriers in a Department of Agriculture pilot cost study had average costs of 28.8¢ per vehicle mile as against Class I and II common carrier costs of 39.4¢ for the Middle Atlantic Region."

Mr. Schumaier reported that exempt truckers, in the USDA study, reported having no close competition for their traffic. When there was competition it came mainly (56%) from the railroads, 16% from other exempt carriers, only 12% from common carrier trucks and 7% from private trucks and water carriers—while 9% reported no competition at all.

In a survey of the implications of the agricultural exemptions for private and common carriers, Dr. Leon N. Moses, the Transportation Center's director of research, told the conference audience of the area where, in effect, even common carrier trucks operate as private motor carriers—unlike railroads which are required to accept agricultural commodities at regulated prices. "Railroads are forced to provide an umbrella price over the market," noted Dr. Moses. Because rail rates are ICC-regulated and rigid, unregulated motor carriers are free to enter the market and tailor rates to capture whatever commodities and routes are most lucrative. Railroads are left—because they must haul whatever is offered—with the costliest and least attractive risidual traffic. The logical implications? "A decline in the rail share of traffic and a squeeze on rail profit as reduced volume adds to idle capacity."

An exhaustive study of transportation costs in the meat producing, packing and processing field was presented to the Conference by Wilbur Maki of Iowa State University. Mr. Maki explained the "substantial diversion of livestock and meat shipments from rail to truck" since 1939, and particularly since 1950, as the result of producers and processors seeking optimum location for their markets and plants with respect to overall marketing and transportation efficiency, convenience, service and costs. He said, "As the market distribution process for livestock becomes rationalized through packer-producer contractual arrangements and other schemes to standardize payment for livestock of specified quality, the element of market convenience will become even more important. Undoubtedly, hired trucking of livestock to nearby, rather than more distant markets, would be encouraged." Later, Mr. Maki said, "Because of the elastic demand for specific transportation service, a rate increase in one mode would mean a substantial diversion to the more economic service. In the long run it would also mean a locational response in accordance with the efficiency criterion."

Mr. Maki described the entire procurement-processing-distribution transportation cost as a variable which "packers and other livestock market agencies" can shift from one party to another. "Convenience, cost and service vie with each other; livestock producers tend to prefer nearby markets and slaughtering plants. . . . Thus the transportation bill for livestock can decline while for meat it will rise."

CP-BRT Pact Called Significant Advance

Canadian Pacific has made new gains in its continuing fight to eliminate work rules that produce and promote featherbedding practices.

Agreement on a new contract with the Brotherhood of Railroad Trainmen came at 2:45 a.m. Oct. 27—just a few hours before CP was to begin an orderly shutdown of the property in advance of a strike set for noon Monday, Oct. 29.

CP Vice President R. A. Emerson said the settlement "has resulted in significant advances in removing inefficiency arising from unwarranted restrictions. This indicates further realization by running trades employees of the need to amend labor contracts to enable the railways to remain competitive and provide job opportunities."

Earlier in the dispute, Mr. Emerson charged that "the only issue is featherbedding." Canadian Pacific, he noted, had accepted Conciliation Board recommendations concerning wages and rules—but the union attitude on major points "was completely negative."

Attempts to negotiate, CP's vice president declared, were "completely frustrating. (The union's) attitude throughout can only be likened to that of Mr. Khrushchev—what's mine is mine and what's yours is negotiable."

In the settlement—reached by CP and the BRT with the aid of federal mediator W. H. Dickie—Trainmen will get an 8% wage increase, spread over the 31-month life of the contract. Nine rules changes asked by the union and recommended by the Conciliation Board were adopted. Nine of 10 changes asked by the company and upheld by the Board were accepted (two of them with modifications).

The wage schedule calls for payment of 1% retroactive to June 1, 1961; 1% retroactive to Dec. 1, 1961; 1½% to be paid in the first pay period following signing of the contract; 2½% on Dec. 1, 1962; and 2% on June 1, 1963. Termination date of the agreement is Dec. 31, 1963.

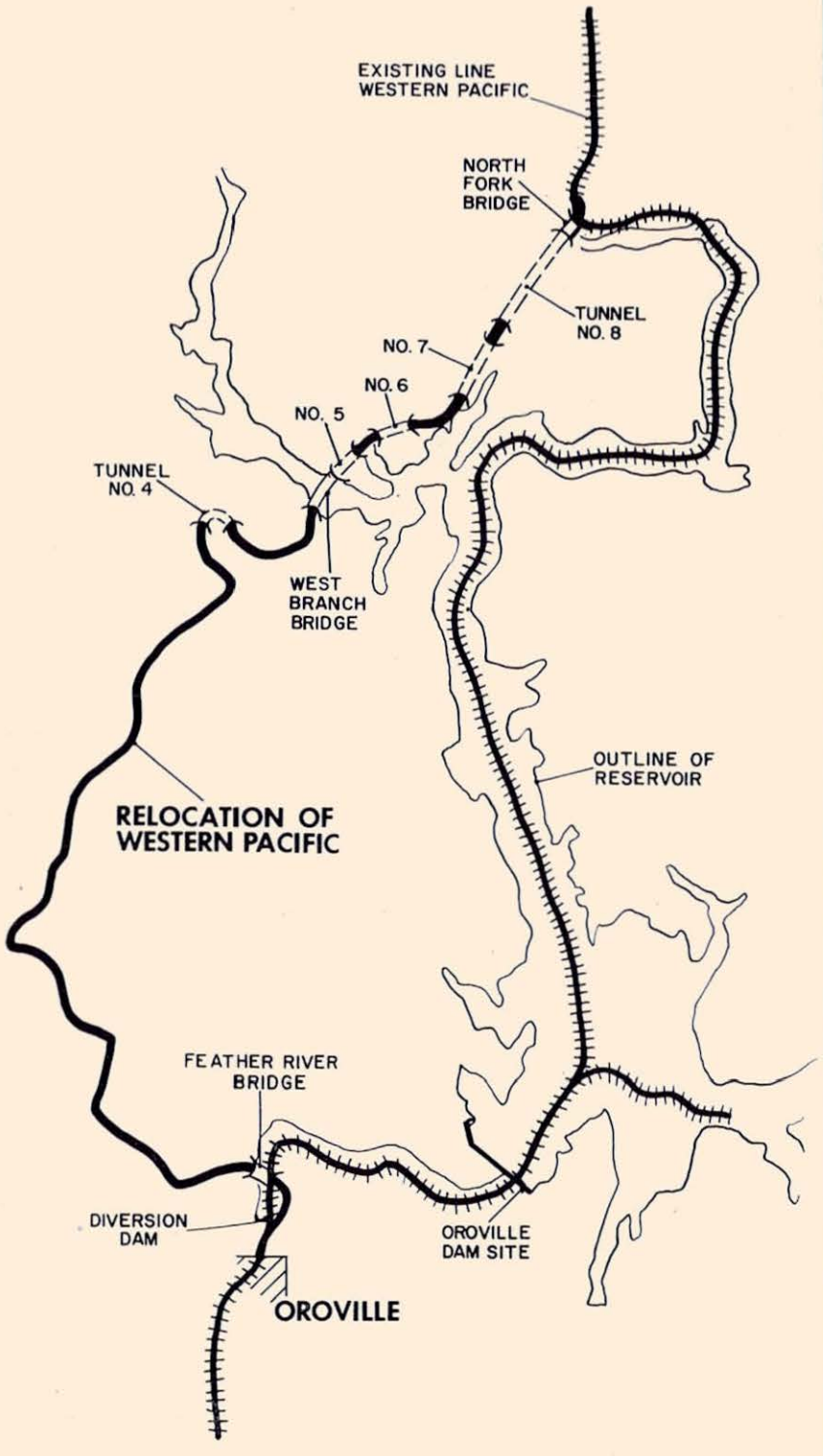
Principle, not price, was apparently the key to CP's determination not to give in on the rules issue. Unlike the fireman-off case (which CP and, later, Canadian National won), the CP-BRT dispute involved rule changes "aimed less at make-work than at extra pay." Rule revisions, the railroad said, would not lead to cutbacks in employment. And, while "the cost elimination will be relatively minor in terms of the total wage bill. . . . Canadian Pacific maintains it cannot afford to pay one dollar in unnecessary wages."

The Conciliation Board recognized CP's point. In commenting on one proposed change, board members wrote that "artificial payments for work not done . . . can only be operated in the long run to unduly inflate freight rates and reduce the ability of the railroad to complete effectively for business."

WP's $40-Million Oroville Line

Where New Western Pacific Line Goes

Construction of Oroville dam, to be carried out by the state of California, will lead to flooding of part of the Western Pacific's Feather River canyon line. Old line, and the new 23-mile single-track relocated line, are shown in the map below.



► The Story at a Glance: One of the largest U.S. line-change projects to be carried out in years has been brought to substantial completion. It is a line that had to be built to replace a 27-mile section of the Western Pacific in the Feather River canyon in California, which eventually will be inundated by water impounded by the Oroville dam. The project was characterized by heavy grading and the construction of three major bridges with unusual features.

Train service was begun Oct. 22 over the $40-million 23-mile Oroville line change of the Western Pacific in Northern California. Thus was brought to a close, in the words of Frank W. Woolford, WP's chief engineer, "some 12 years of locating, surveying, planning and construction, including three years of negotiating for a fair and reasonable agreement."

The line change was carried out to replace nearly 27 miles of line in the Feather River canyon (RA, July 20, 1959, p. 30). Reason for the relocation is the construction of the Oroville dam which will bring about the eventual inundation of the old line.

The primary purpose of the dam, construction of which will be carried out by the state of California through the Department of Water Resources, is to furnish water for irrigation as far south as Los Angeles and San Diego.

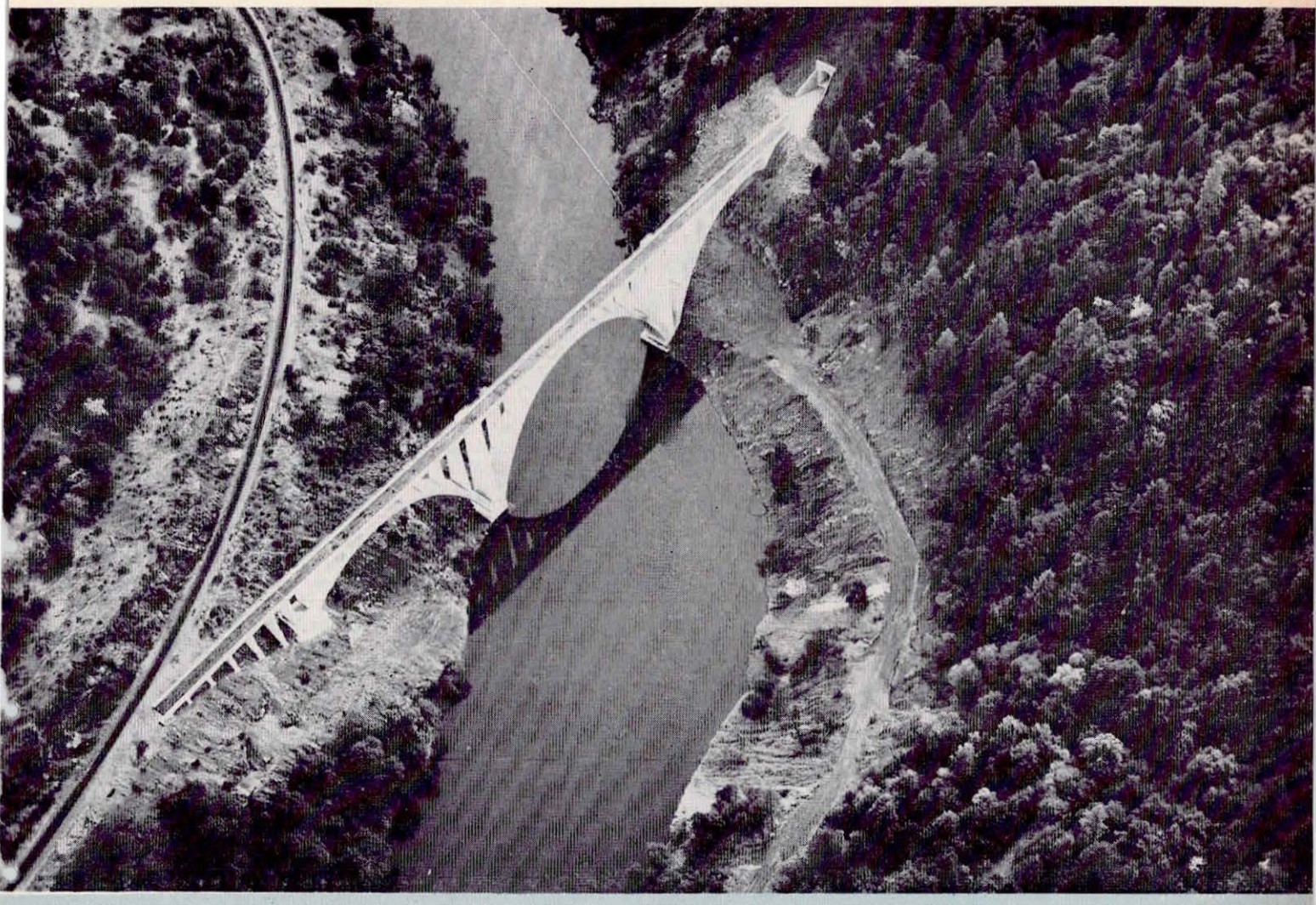
The single-track relocated line departs from the existing line at a point a few hundred feet north of the Oroville passenger station, which is some four miles downstream from the site of the proposed dam. It then negotiates a wide swing to the west (see map) before turning north and eventually rejoining the existing line along the North Fork of the Feather River. The territory traversed is mountainous and sparsely populated and is cut by several streams flowing in deep valleys.

Specifications established for the new line called for a maximum grade of 1% compensated, and a maximum curvature of 4 deg 30 min. To hold to these requirements it was necessary to resort to a number of tunnels and high bridges, plus deep cuts, high fills and several meandering curves of the "kidney" variety.

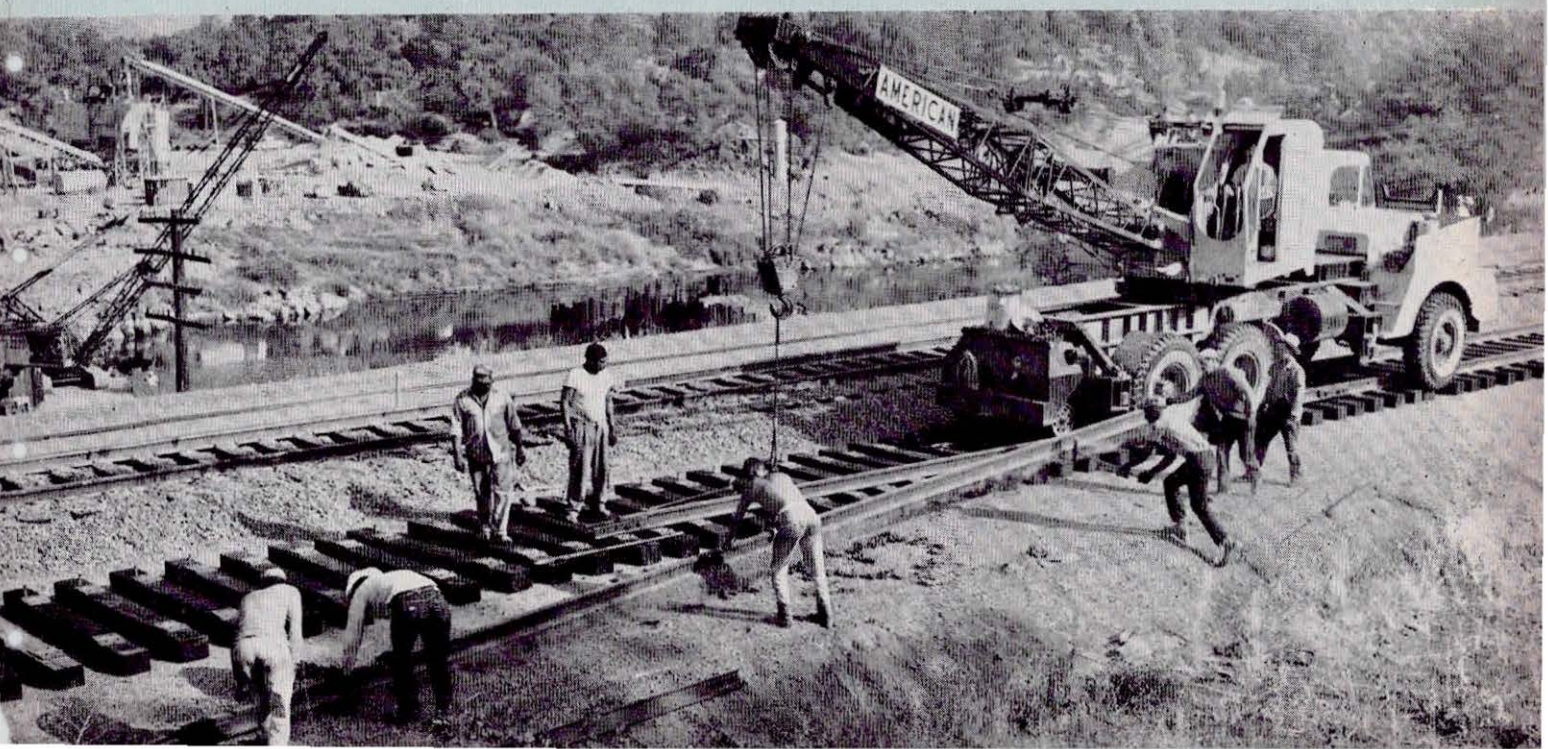
There are five tunnels on the relocated line, numbered from 4 to 8. These range in length from 2,750 ft (No. 4) to 8,830 ft (No. 8). All are concrete lined.

All the tunnels are concentrated in the northerly portion of the line where

Change Opens for Train Service



BRIDGE at extreme north end of relocated line (above), consists of open-spandrel reinforced concrete arch structure with total length of 1,000 ft. Below, rails are shown being laid on ties by truck crane which has flanged guide wheels. The crane was followed by power spikers, bolting machines, tie spacers and anchor applicators.



it makes several crossings with tributaries of the Feather River. This portion of the line presents a succession of tunnels and bridges coming so close together that, in some instances, tunnel portals and abutments of adjacent bridges are only a few feet apart.

As might be expected on a railroad construction project in such rugged country, extremely heavy grading was required at some locations. An idea of the magnitude of the grading is given by the fact that there are fills ranging up to 265 ft in height and cuts having a maximum depth of 218 ft at the center line. Excavation totaled about 6,300,000 cu yd, most of it in rock.

There are three major bridges, all with unusual outstanding features. Starting at the southerly end of the line, the first of these is a crossing of the Feather River a short distance above Oroville. This bridge crosses an afterbay in which the water will be up to 110 ft deep. The structure consists of a series of 100-ft ballast-floor deck plate-girder spans on single-cylinder concrete piers. The main span is 128 ft long. The bridge has a total length of 1,108 ft, all on a 3-deg curve.

The crossing of this bridge is skewed about 30 deg with the river. To avoid skewing the superstructure, the spans are carried on circular piers with "T" heads to support the girders. These circular piers were considered to be the most advantageous in countering the effect of seismic forces in water.

There is a possibility that a second track may be required at this location in the future. Therefore, a second cylindrical shaft was built at each pier location and carried above the future pool level. Both shafts at each location have a common foundation.

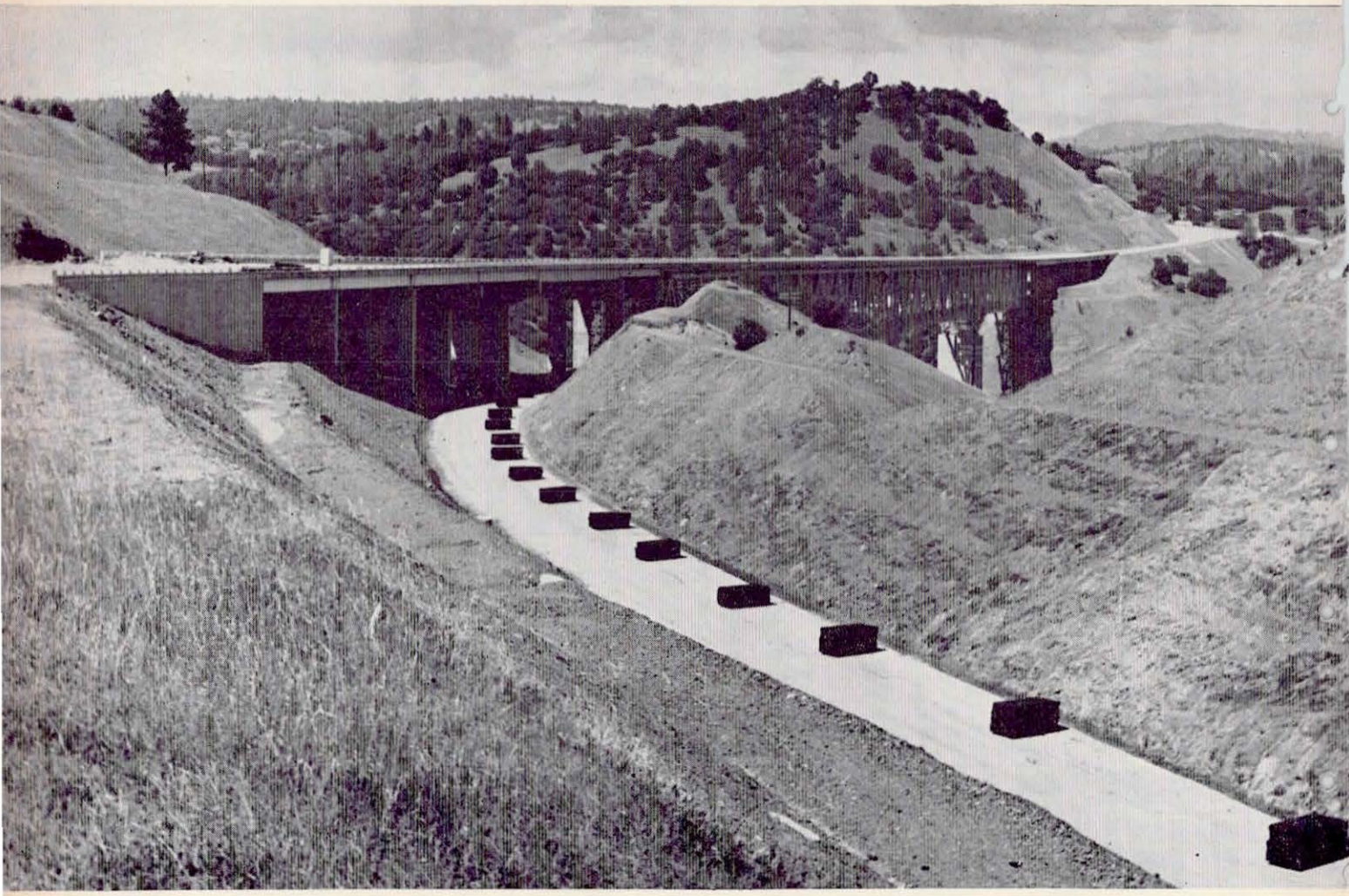
The next major structure farther north is a bridge that carries the relocated line and a highway across the West Branch of the Feather River on separate levels. The upper level is occupied by U.S. Alternate 40, one of the major highway routes through the Sierra Nevadas. This structure is a cantilever bridge which spans the canyon about 400 ft above the streambed. The main span is about 575 ft long and the anchor spans are 432 ft in length. In addition there is a 360-ft simple span at the south end.

At the extreme northerly end of the line will be found the third major river crossing, this one spanning the North Fork of the Feather River. Here the line emerges from the north portal of Tunnel No. 8 and passes almost immediately onto the North Fork bridge.

This structure is an open-spandrel reinforced concrete arch with a main span 308 ft long. Total length of the bridge including approach spans is nearly 1,000 ft. "I believe," says Mr. Woolford, "this is the longest railroad reinforced arch structure in the United States." The height from the base of rail to the river bottom is about 200 ft.

Track laying was done with railroad forces, although the distribution of rails, ties and accessories was carried out under contract. For the most part the rail was laid in 78-ft lengths, but continuous welded rail will be laid across all bridges and through all tunnels. However, at the time the track was laid a butt-welding machine was not available, requiring that 39-ft relay rails be laid across the bridges and in the tunnels.

"At a later date," says Mr. Woolford, "the 39-ft rails will be moved aside and replaced with continuous welded rail



WEST BRANCH BRIDGE carries a highway on the upper level and the railroad on the lower deck.

not having any joints except insulated joints and the connection with the 78-ft rails. The jointed rail to be moved over will then be used as inside guard rails across and through these structures."

In preparation for the track laying a material yard was established near Oroville where necessary track materials except ballast were assembled for distribution. Ballast had been produced and stored nearby. Railroad personnel accomplished all loading, unloading and distribution of the material. The rubber-tired hauling equipment and the personnel for operating it was provided by the contractor. Both the rails and the ties, which were in bundles, were unloaded by a 15-ton American crane with flanged-wheel attachment.

In distributing the track material it was placed in designated block areas. As soon as all material distribution had been accomplished in a complete block, the railroad's forces moved in and began the construction of turnouts and made other preparations for the track-laying operation, which included placement of the ties on the roadbed.

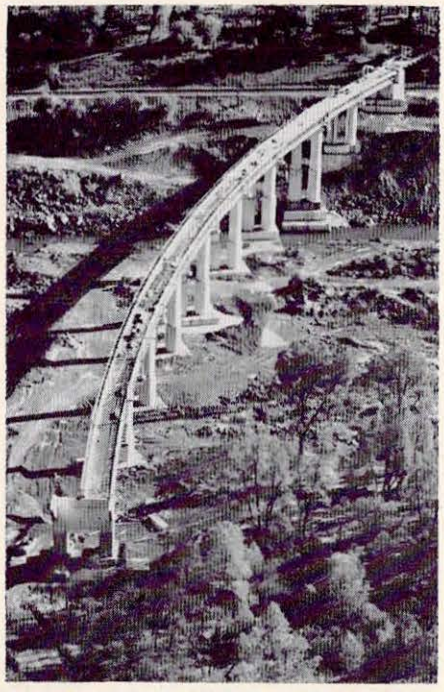
Upon completion of the material distribution, the railroad's steel gang began working at the Oroville end and built the track out-of-face for the entire length of the line. At the head end of the track-laying gang was the American truck crane, which, operating on the newly laid rails, picked up the 78-ft rails and laid them on the ties. Follow-up operations were performed by modern machines, including several different types of power spikers, as well as bolting machines, tie spacers and anchor applicators.

"About a week or 10 days after the beginning of the rail placement," explains Mr. Woolford, "our ballast unloading operations got under way, followed by a first and then a second tamping lift." Each lift involved a raise of 4 in.

Machines employed in the surfacing operation, said Mr. Woolford, included an RMC Jack Tamper, with an RMC electronic surfacing beam, a Jackson Track Maintainer, an RMC Tie spacer and a Kershaw Track Liner which was used in conjunction with a Nordberg Line Indicator. These machines—plus a crew consisting of a foreman, an assistant foreman, five equipment operators and 14 laborers—"accomplished a mile of completely surfaced track per 8-hr day," Mr. Woolford said. On completion of the second lift a Kershaw Ballast Regulator and a Kershaw track broom were used for initially dressing up and cleaning off the ballast section.

When operations were transferred to the relocated line on Oct. 22 there still remained unsettled a dispute between the state of California and the Feather River Railway regarding the disposition of this line. The Feather River is a lumber-hauling line that connects with the WP at Land, Calif., about seven miles above Oroville. Pending settlement of the dispute, which is now in the hands of the ICC, the WP will run one train a day over the old line from the northerly end to Land.

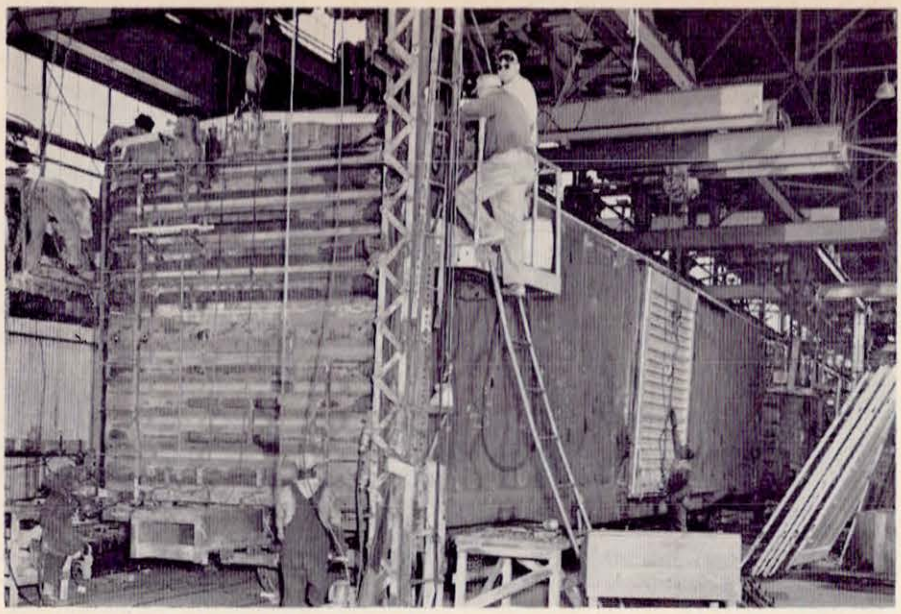
Inauguration of service over the new route will be followed by a 60-day test period before acceptance of the relocation and abandonment of the old line. "Only one obstacle still remains to be overcome," says Mr. Woolford, "and that is a serious slide condition that had developed in one of the extensive cuts on the project." This condition is now being corrected by relocating the line away from the hillside.



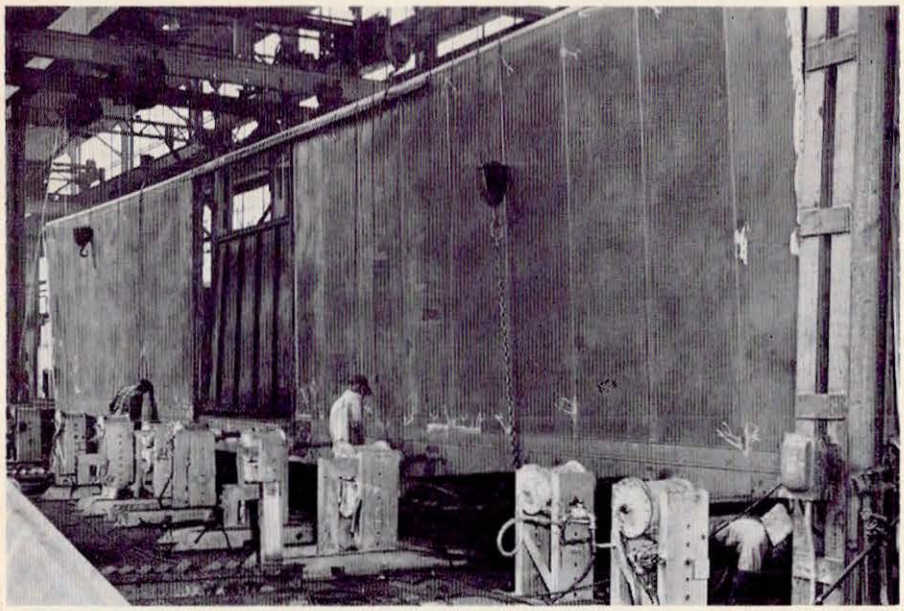
CYLINDRICAL PIERS with "T" heads are a feature of the bridge across the Feather River a short distance above Oroville. Second shaft at each pier was built against the possibility that another track may be added in the future.

TRUCK CRANE unloads 78-ft rails from flatbed truck. Track materials were hauled by contractor but loaded and unloaded with railroad forces and equipment. Note bundle of ties on opposite side of roadbed.

L&N Gets Big-Load Box Cars



BIG L&N BOX CARS designed for shippers wishing to take advantage of road's incentive rates are assembled at Pullman-Standard's Bessemer, Ala. plant.



60-FT CAR SIDE is swung into place during assembly operations. Cars have P-S Hydroframe-60 cushion underframes, aluminum roofs and 10-ft aluminum doors.

PARTIAL LIST OF SUPPLIERS

Truck frames and bolsters	ASF Inc.
Roller bearings	Timken Roller Bearing Co.
Stabilizer parts	Standard Car Truck Co.
Pedestal adapters, coupler yokes	National Castings Co.
Couplers	Symington-Wayne Corp.
Draft gears	Cardwell-Westinghouse Co.
Brake shoes	Standard Brake Shoe Co.
Brake beam wear plates	Unit Truck Corp.
Hand brakes	Universal Railway Devices
Running boards, brake and crossover steps	Apex Railway Products Co.
Side doors and fixtures	Camel Sales Co.
Loader equipment	Evans Products Co.
Slack adjusters	American SAB Co., Inc.

The first of 50 high-capacity box cars are being delivered to the Louisville & Nashville by Pullman-Standard. The 6,146-cu-ft cars are designed for shippers wishing to take advantage of the L&N's incentive rates that provide a reduction for tonnage over the standard minimum of 50,000 lb. Nominally classified as 100-ton cars, they have a load limit in the 93-ton range, depending on the lightweight of individual cars.

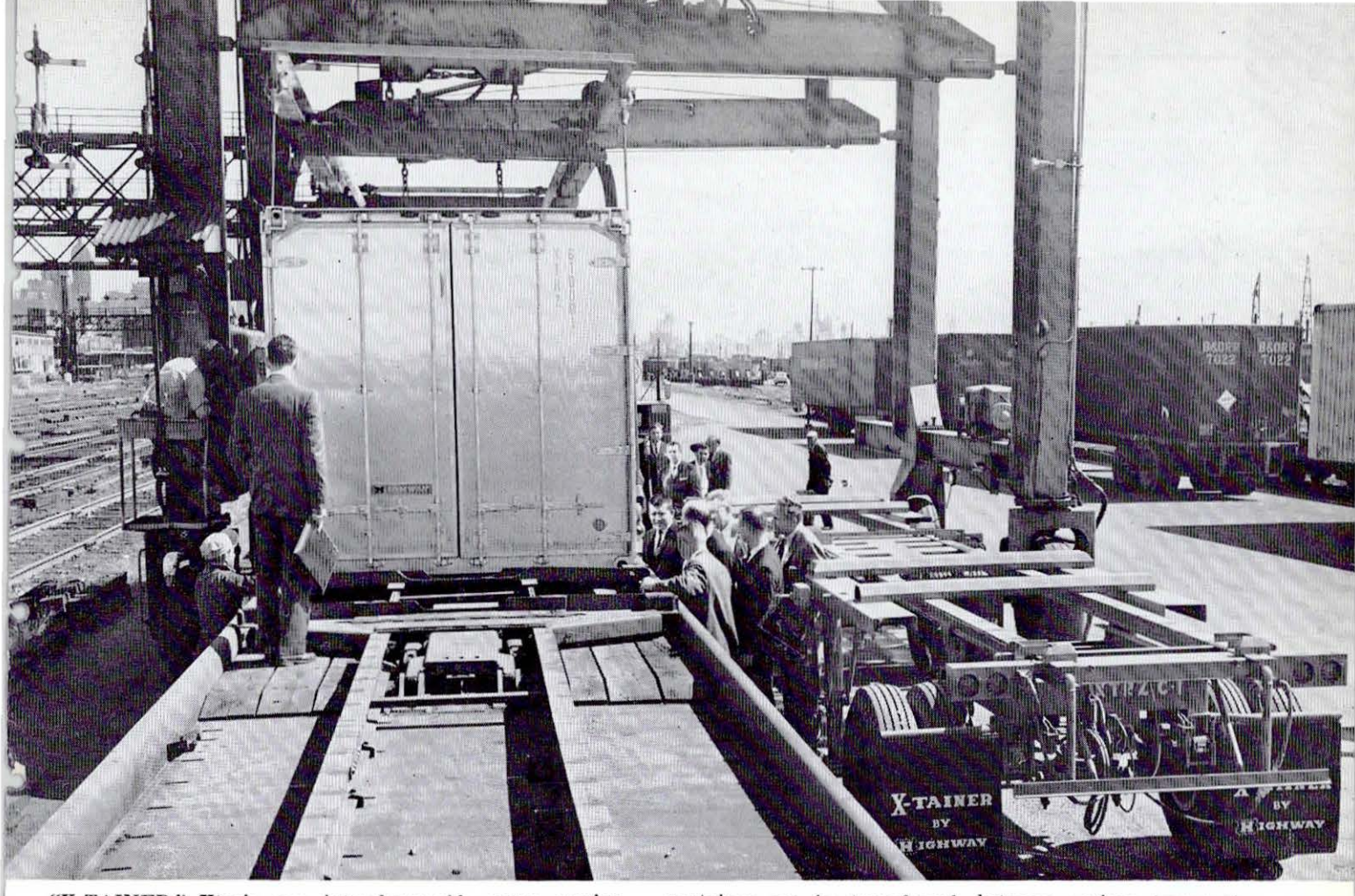
"A great many will be used in the paper industry where incentive loading has been very strongly highlighted" said L&N's president, William H. Kendall, when discussing the cars in a recent interview (RA, Oct. 22, p. 13). He also said his road's average loads from paper mills had increased from 33 to more than 70 tons per car. The increase was made possible by a "larger-capacity car, with cushioned underframe and stowing devices that permit double-tier loading."

In addition to using the cars for hauling paper, the L&N will utilize them for moving pulpwood, gypsum board, bearing castings, valves and fittings, tobacco, tire fabric, tin plate and other commodities where traffic will justify their use.

One of the fifty 60-ft box cars was displayed at Birmingham, Ala. on Oct. 12. Based on the builder's PS-1 design, the cars are equipped with the P-S Hydroframe-60 cushion underframe and designated "Cushioned-Cargo" by the railroad. They have load retainers, aluminum roofs and 10-ft aluminum doors.

Side sheets are of .075-in. United States Steel Cor-Ten, except adjacent to the doorway, where 3/16-in. OH CB sheets are installed. USS Tri-Ten is used for side sills, body bolsters and crossbearers. Although the car is generally considered of welded construction, Huck bolts are used at several locations. Decking is 2-⅜-in. Doweloc with hickory at the doorway, remainder of oak. The trucks have 6-½ by 12 roller bearings and 36-in. wheels.

The cars have an inside length of 60 ft 9 in., inside width of 9 ft 4 in. and an inside height of 10 ft 10 in. Truck centers are 41 ft 3 in.



"X-TAINER," Xtra's new interchangeable cargo carrier, can be transported by rail, highway, water or air; the new container can be transferred, between various transport modes, by a variety of different devices.

New Fully Compatible Container Is Unveiled

"X-Tainer," a fully compatible freight container system, is now being offered to the transportation industry by Xtra, Inc., Boston-based trailer rental firm.

The new cargo system has as its basic elements a van container and an adapter chassis, both being built, presently, by Highway Trailer Industries, Inc. The bodies and chassis can be operated together, for highway service, or the bodies can be quickly detached from the chassis for shipment by rail, water or air. Inclusion of a variety of lifting attachments permits transfer by virtually any method now in general use—fork-lift truck, straddle crane, gantry or shipboard crane, wire rope sling.

X-Tainers now being demonstrated are composite steel and aluminum dry freight units conforming to ASA-recommended dimensions—19 ft, 10½ in. overall length and 96 in. in overall width. Height of 102½ in. establishes a total highway vehicle height of 12½ ft with an adapter chassis with fifth wheel height of 47½ in. Retractable automatic-locking couplers at all four corners allow face-to-face contact of two vans for rail or highway handling as a single 40-ft unit. All coupling and lifting devices are fully recessed into the container body.

Rated carrying capacity of a single 20-ft (nominal length) box is 40,000 lb; for two vans connected end-to-end, it is 60,000 lb. Floor structure is designed to carry a uniformly distributed static load of 500 lb per sq ft, or a fork-truck load of 12,000 lb. For storage or water shipment, loaded containers may be stacked up to six high.

In rail service, the containers can be handled on cars equipped with the Pullman-Standard wide bolster shock cradle; the Youngstown Duo cradle; the narrow-frame adapters on ACF or General American G-85 flat cars; or Missouri Pacific and Baltimore & Ohio container cradles.

The adapter chassis utilizes a sliding bogie arrangement which permits joining two containers together, end to end, for operation as a single conventional-length dual-axle semi-trailer; or carriage of a single trailer on a single rear axle for PU&D operation. Each part of the adapter chassis features such essentials as king-pin assembly, folding landing gear, lights, bumpers, brake lines and axle-load equalizers for use in multiple operation.

Xtra currently has on order from Highway Trailer Industries 1,000 of the 20-ft boxes, which will be made available to members of the company's per diem pool (55 railroads and five steamship companies) at a probable per diem rental of $2.50 per day.

The company also is considering construction of some single 40-ft units of the same compatible type for rail or highway use. Additionally, it has under development a flat or stake body container and a bulk-carrying container. The initial dry freight boxes can be equipped with interior refrigeration units for perishable service; with meat rails, or other desired interior accessories.

On the Union Pacific . . .

the Revolutionary GP-30

New Revolutionary GP-30's will give unprecedented broad-range capability to Union Pacific's crack freight fleet. The GP-30's offer more operating flexibility — high speed today, heavy drag tomorrow — and will move more gross ton-miles per freight train hour, at lower operating cost, than ever before. General Motors' 2250 horsepower GP-30 incorporates thirty major technological advancements leading to dramatic savings in operation and maintenance . . . a big step ahead in motive power progress.

ELECTRO-MOTIVE DIVISION · GENERAL MOTORS · LA GRANGE, ILLINOIS

HOME OF THE DIESEL LOCOMOTIVE · In Canada: General Motors Diesel Limited, London, Ontario

GENERAL MOTORS LOCOMOTIVES

'Rail Data Central' Urged For Carriers

A central clearing house for information would help the railroads make more effective use of available data, a business machines manufacturer says.

Freeman H. Dyke, Jr., vice president of Jonker Business Machines, told a Railway Systems & Management Association Seminar that "While most organizations are able to do an effective job gathering, analyzing, using and storing information, they are not able to do an effective job retrieving, correlating and re-using this information."

He said railroads would benefit if they joined together through one of their associations and set up an information clearing house: "By a cooperative effort, this could be done at reasonable cost."

RSMA's panel of answer-men, familiar with information-gathering techniques in government, the space program, AT&T and other industry, generally agreed that railroads need to step up their data gathering facilities and improve their information-use techniques. Most of them, however, were cautious in making recommendations because the computer industry is still developing and because, in the words of one RSMA expert, there is a "danger of losing current freedom," once managers are tied to an information-oriented decision process.

Richard J. Hamlin, director of systems services for Charles W. Adams, Associates of Bedford, Mass., told the seminar that progress in computer design and use in the space program makes this area one which the railroad industry should study. He told how logic, not hardware, is the new focus for the design of computer information systems—and how hardware development which was news only a few years ago (solid-state circuitry, magnetic tapes operating reliably at upwards of 100,000 characters per second, magnetic "juke boxes" for random access to files of 20 million characters and scanners for reading and interpreting printed numbers) is now taken for granted.

Another of RSMA's seminar speakers, A. S. Lang, director of data systems for the New York Central, described NYC's formula for helping management get data for decision-making: "First, is there a data problem? Second, if there is, what are the alternative courses of action that can be taken to secure the data? And, third, what are the consequences of each of the alternative courses of action?" By considering these three questions before any search for information is started on the NYC, he said, it is possible to secure precise data quickly—or to determine that certain information is not worth the price of securing it. Mr. Lang said careful consideration should be given to the kind of decisions management might be called upon to make in years ahead—and then to the kind of information required.

Dr. Ben-Ami Lipetz, of Itek Corporation's Information Sciences Laboratory, explained that the only reason for maintaining a store of information "is to provide service," and that the sole reason for the selection of any automated system should be to give more service to more people in less time. Dr. Lipetz described problems involved in changing a manually operated record system to a mechanized system, citing a cataloging system Itek developed for an Air Force library.

AT&T's J. A. Cotner told how his company solved the problem of making engineering information readily available to thousands of engineers throughout the U. S. By microfilming engineering drawings, he said, engineers in various locations can have a complete "library" of their own from which they can readily draw duplicates, thereby speeding up projects that were formerly delayed pending the arrival of vital information from distant centers.

A note of caution was sounded by Battelle Memorial Institute's G. S. Simpson, Jr., who told the group that in striving for perfection in information handling there is danger of losing flexibility in "current freedom" to disregard data.

Mr. Simpson, assistant manager of Battelle's Department of Economic and Information Services, said that a perfect method of information handling probably could not be controlled by any individual group or industry.

Transit Automation 'May Be Essential'

Transit automation is practicable—and it may well be essential, according to R. D. Weeks, manager, Metropolitan Transportation, General Electric.

Mr. Weeks contends that "today, more than ever, the rapid transit industry has a dual responsibility. Not only must it make a maximum contribution to the health of our economy through economical operation, but it also has the moral responsibility to see that rapid transit assumes its proper role as a key part of the total metropolitan transportation complex."

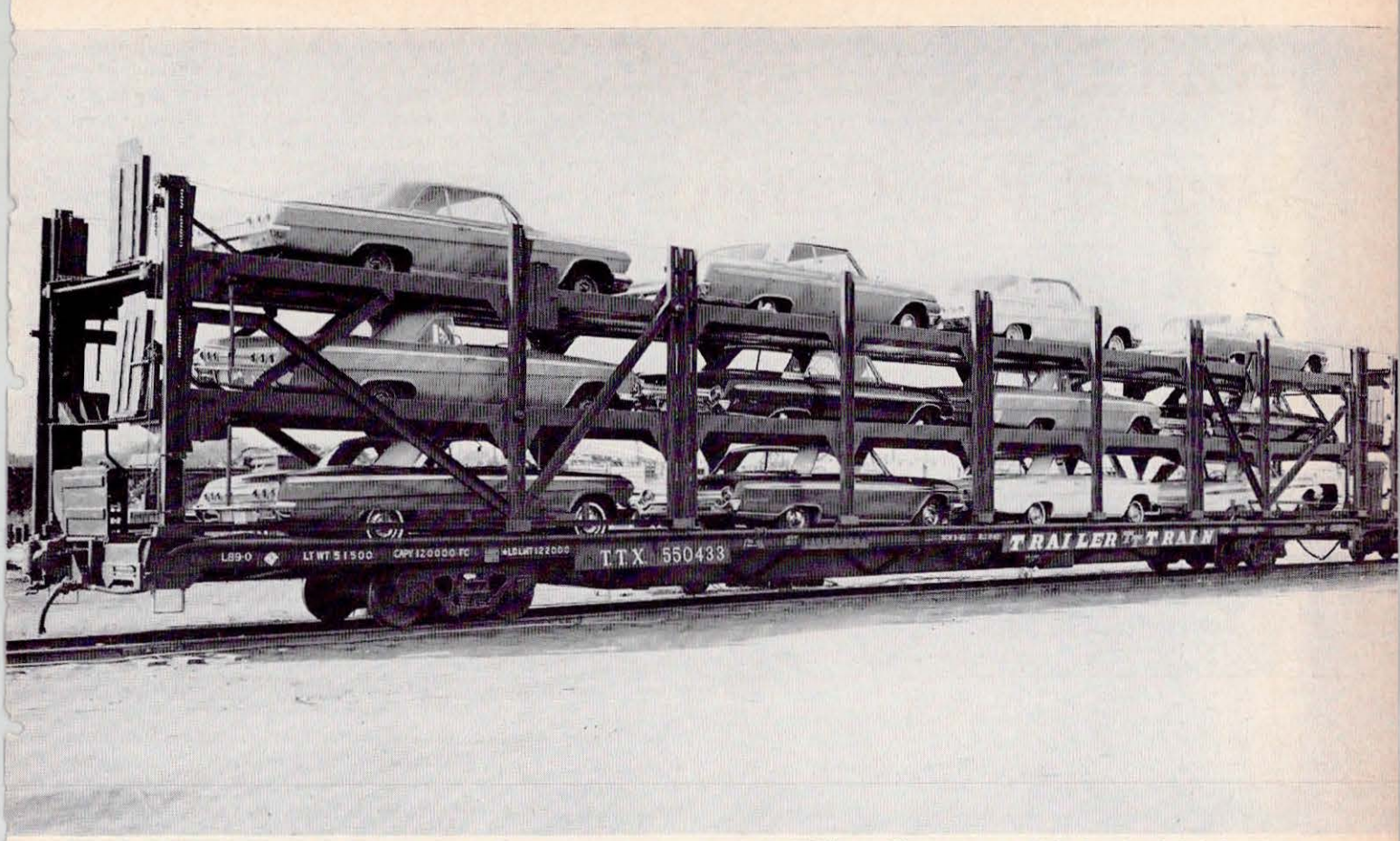
Steadily increasing transportation requirements, he believes, "demand greater reliance on rapid transit. In addition to economy, rapid transit automation—by providing faster and more frequent service and greater comfort and convenience—can compete more effectively with other forms of transportation."

GE's Mr. Weeks sees a transit automation "ring" made up of three integrated elements:

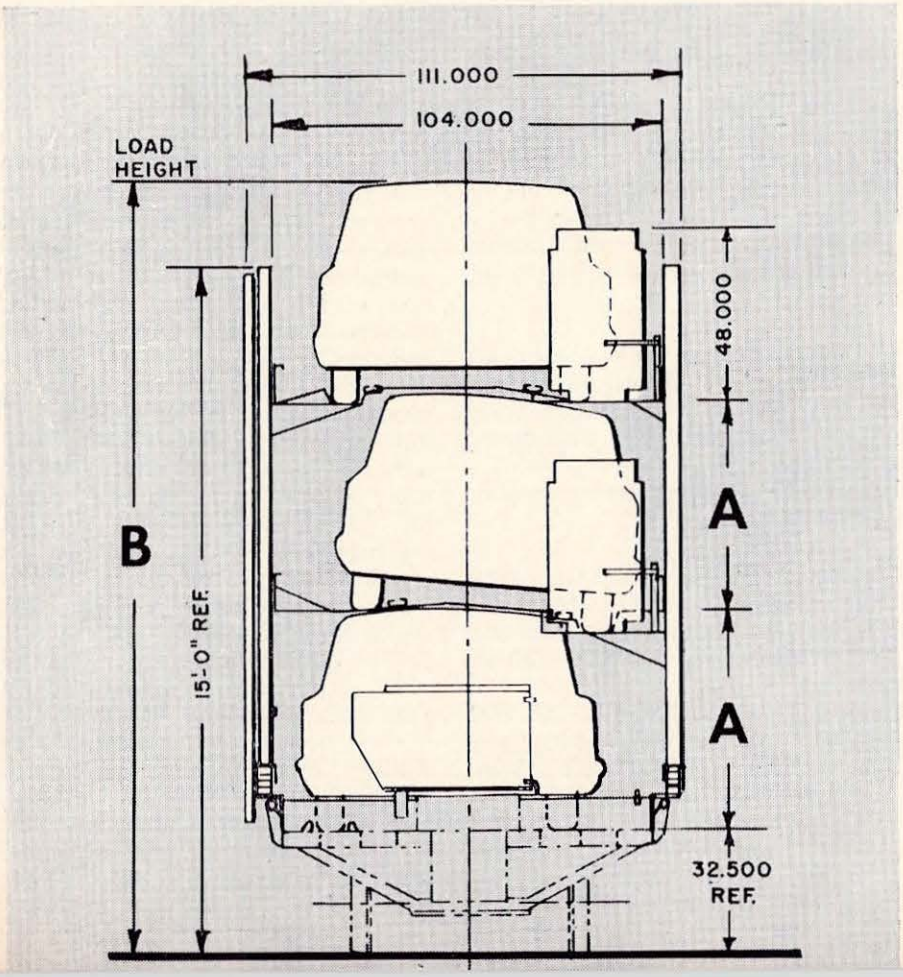
- Train operation—the element which provides automated movement of trains on station-to-station runs and accurate positioned stopping at platforms. Control would be from wayside to an on-board train running regulator. Precise control, Mr. Weeks notes, would lead to reduced power consumption, smoother operation for passenger comfort, higher scheduled speeds and train operation at predetermined acceleration and braking rates.
- Line supervision—the element which adds and removes trains from the system and regulates headway.
- Train safety—the element which sets up automatic and continuous protection against collision or overspeeding of automated trains through restricted speed zones.

Mr. Weeks told the electrical and plant and engineering divisions of the American Transit Association recently that this concept "can be easily adapted to any system."

And as for new transit systems: "In my opinion, automation is mandatory."



ADJUSTABLE end racks (above) can aline center and upper decks with those of standard rack cars. Deck height dimension (A, below) can be set for different auto models. With A dimension of 58¾ in., load height B is 16 ft 5½ in. When A is set at 61¼ in., load height becomes 16 ft 10½ in.



New Rack Cuts Auto Car Height

A reduction in the overall height of loaded tri-level auto cars is possible with a newly developed rack. The R-3 rack, made by the Dana Corp., was demonstrated recently at Ecorse, Mich., to representatives of 30 railroads.

The height reduction is accomplished by slanting the rack's middle deck 22 degrees toward one side and by offsetting the bottom-deck automobiles toward the opposite side of the car. At the demonstration, Dana's entry in the competition for the rack business of railroads with tunnel-, bridge-, and catenary-clearance problems was on an 89-ft ACF low-level Hitch Hiker.

The 22-degree tilt on the rack's middle deck was described by H. Hiser,

RAILROADING AFTER HOURS WITH JIM LYNE

TRAIN TRAVEL, 'STATUS SYMBOL' — The magazine Business Week has a weekly column labeled "Personal Business," in which readers are advised how to get maximum value for the money they spend. In the Oct. 13 issue the column had a longish item entitled "Don't follow the crowd—take the train."

BW tells its customers that a long-pull trip by train has the same kind of relaxing effect on the passenger that a sea voyage does. Moreover, on overnight trips, the customer doesn't use any more company time than he would by flying. Quite a number of trains and railroads are mentioned, with words of praise; and specific rates are spelled out. This is the best piece of publicity I've seen in a long time, in a publication of general circulation, for railroad passenger service.

As BW says, train travel could easily become a "status symbol." The idea needs to be skilfully and persistently merchandised.

COSTS, EXPENSES & 'SUNK' COSTS—Professor John Kohl of the University of Michigan (temporarily working for Uncle Sam as head of the transportation end of the Housing Agency) has written me a note on my slight effort here (Oct. 15) to distinguish between the terms "cost" and "expense."

Mighty few people who use these words in print or in public statements seem to realize that these two terms are not synonymous. The cost of any product or service includes all the expenses of production, no matter who pays them. A shipper pays a freight rate and that is his expense, but the total cost of the service may be much more (or, sometimes, much less).

There's another term that needs more understanding than it gets—and that is "sunk cost"—the money you have put into a facility that you can't recover by going out of business. Sunk costs are not a proper factor to consider in competitive pricing. These are costs that you try to collect in your prices—but only to the degree that your competitors' prices allow you to do so. It is better business to collect 10% of your sunk cost than to insist on collecting 100%—and wind up with nothing.

SHACKLED COMPETITORS—The editor of "Package Engineering" magazine, Bruce Holmgren, has sent me a copy of one of his editorials in which he outlines the handicaps applied to the railroads, but not to their competitors. He goes on to say:

"The answer is to remove the restrictions from the rails rather than to bring less-regulated and nonregulated carriers under these regulations. The rails are eager to compete freely and fairly. Are their competitors afraid to do so?"

The obvious answer to Editor Holmgren's question is: Yes, they are; and it's perfectly natural that they should be. Since they are fallible human beings, the untrammeled transport agencies could be expected to prefer to have their railroad competitors thoroughly shackled, as they are. This attitude is easy to understand, although perhaps not so easy to admire.

COMMUTING AT 100 MPH?—Tom Taber, zealous head of the Morris County (N.J.) Public Transportation Board, tells me that 25 kv AC multiple-unit cars have been ordered for service between London and Clacton which will cruise at 90-100 mph. "Every timetable change over there," Tom goes on to say, "shows more, better, and faster trains." I'd say it's all a question of money. Railroad managers have never shown any reluctance to spend money for improved equipment, when they had it to spend.

AUTOMATION FOR SAFETY—John Kneiling of "integral train" fame takes me to task for saying here (Oct. 15, p. 33) that automation of train operation, primarily for safety (rather than economic) reasons, was a new idea for me. John recalls that he discussed this point with me some months ago.

It is merely a matter of emphasis. An automated train obviously is safer than a train that is manned—because there's nobody on it to get hurt if something goes wrong. But the idea that the safety factor alone would justify the expense in some (perhaps many) cases was and is an idea that's still novel to me—valid though it probably is.

Dana sales engineer, as the key feature of his company's entry into the low-level rack field. "We feel," he said, "that our car's ability to take even the largest station wagon in every position, except one of the end spots on the bottom deck, gives us an edge over other low-level racks. To the best of our knowledge, our car is the only one of the low-levels that can take the large station wagons even on the lower deck, except for the one position."

To handle three tiers of autos with the rack decks set at 58-¾ in., overall height was 16 ft 5½ in. Height was 16 ft 10½ in. when the decks were spaced at 61¼ in. This compares with the loaded height of the standard tri-level rack car, which is 18½ ft or more.

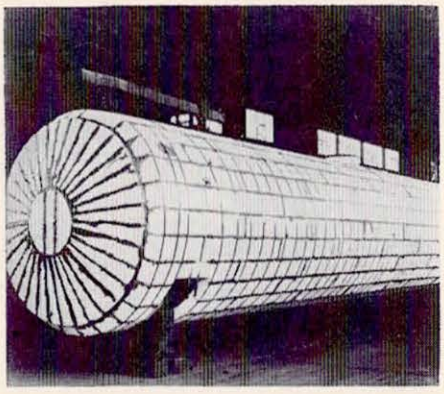
Even though the tilted middle deck does reduce the rail-to-deck heights of the middle and upper decks, the two end rack sections are designed to permit through loading with existing tri-level cars. Second and third decks at the end rack sections can be raised to meet the decks of other tri-level racks, using a piggyback hitch wrench. At the demonstration in the Ecorse yard of the Detroit, Toledo & Ironton, Dana technicians raised and lowered the quarter sections in little more than a minute.

After loading is completed, the decks are lowered to shipping position. In unloading, the procedure is reversed except that, when empty, the rack may be returned to the loading point with the ends elevated, thereby eliminating the necessity of raising them again before reloading.

The low-level rack has been tested on several railroads. A prototype loaded with Fords, Chevrolets, Lincolns, Chryslers and Falcons made trips to Atlanta, Jacksonville, Los Angeles and Miami—often accompanied by a Dana engineer.

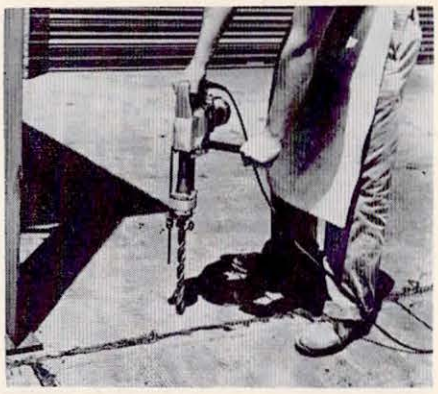
At the demonstration, Dana engineers explained that the low-level rack is cushioned with shear pads that provide vertical cushioning as well as protection against longitudinal impacts. At impacts of 6½ to 10 mph, the shear pads reduced impact by as much as two-thirds to three-quarters. At Ecorse, impacts against a loaded gondola at 7 mph produced a forward rack movement of 6 in. and a rebound of 1-¾ in. The "G" force on the car was 7.5 and the "G" force on the rack was 3.0, representing a 60% reduction. Impact recorders mounted on the car and on the rack gave these readings: one-eighth of Zone 4 on the car and one-half of Zone 2 on the rack. After the series of impact tests, Dana personnel demonstrated the ease with which the movable deck sections could aline with standard rack cars to allow through loading, and drove all the low-level's load off onto standard racks.

NEW PRODUCTS REPORT *(Continued on next page)*



Plastic Insulation (RA-1)

Foamthane, a polyurethane foamed plastic, has cut insulation thickness from 10 to 5-3/8 in. on a GATX tank car handling liquid carbon dioxide, thus increasing lading capacity. The 17,300-gallon tank is covered with Foamthane blocks, 5-3/8 in. x 12 in. x 6 ft, contoured to the tank under a 1/8-in. outer steel jacket. Under normal conditions, the liquid goes into tank at -20 deg F and 200 psi. *Pittsburgh Corning Corp.*



Rotary Hammer (RA-2)

A heavy-duty rotary hammer, which can deliver 4,000 hammer blows a minute at the drilling end of percussion-type carbide bits, combines a rotary action with a hammering action for drilling holes of 1/2 to 1 1/4 in. in masonry, brick, or terra cotta. With a 1/2-in. carbide bit, the hammer can drill a 13-in. deep hole in 1-2-4 concrete in one minute. It can also be used for chiseling, channeling, and demolition work. *Black & Decker.*

Emergency Oxygen (RA-3)

A 90-liter supply of oxygen, U.S.P., sufficient for 15 min of continuous use, is supplied by the Linde Emergency Oxygen Unit which comes complete with a disposable oxygen supply cylinder, plastic oxygen mask and tubing, instruction booklet, carrying case, and a preset regulator for delivering oxygen. The unit, it is said, has long shelf life and can be stored for years without loss of effectiveness. Replacement parts are also available. *Linde Co.*

Paint Restorative (RA-4)

A coverage of 3,000 sq ft per gallon may be realized through the use of Re-Colotone, a paint-restorative chemical containing Xaton. The chemical may be applied by any moistening procedure mixed with paints, or applied directly to metal, wood, masonry, or other painted surfaces. It has been tested by the U.S. Department of the Interior and found to retain normal colors and glossy finish. *Domestic Chemical Corp.*

Crossing Protection (RA-5)

A standard highway-crossing-protection package with controls for flashing-light signals for a single-track railroad is especially adaptable for branch line installations. The instruments are housed and wired in an aluminized PL-300 instrument case. Built-in inverters supply alternating current from batteries when commercial alternating current power is off. Track circuits are of the alternating current direct current type. *Transcontrol Corp.*

Spray Gun (RA-6)

A number of nozzles, including tungsten carbide internal mix nozzles, are available for use with the Model 125 pole spray gun designed for application of heavy materials such as mastics, sound deadeners, and roof coatings, also for spraying abrasive materials, silicates, emulsions, textured coatings, and other materials. The gun, designed for use with conventional air atomized spray equipment, is available in 4-, 6-, or 8-ft lengths. *Binks Manufacturing Co.*

RAILWAY AGE WEEKLY

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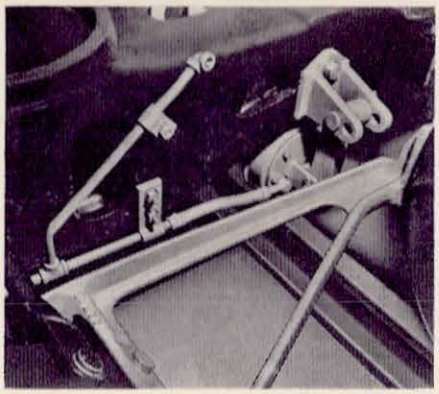
 (Continued from preceding page)

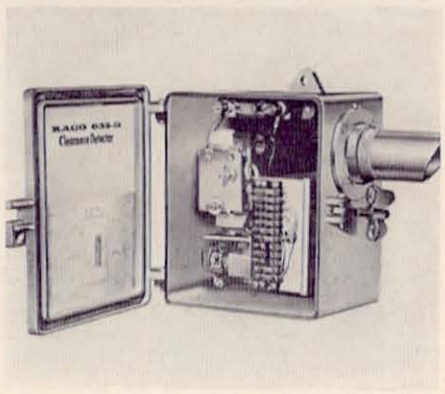
Switch Broom (RA-7)

Equipped with a rotating "broom" and a positive-displacement screw conveyor, the Pyke switch broom sweeps up snow from the ties and deposits it beyond the ends of the ties on the righthand side of the track. The broom and conveyor are mounted at the front of the machine on an assembly that can be hydraulically raised or lowered. The broom consists of sections of discarded train air hoses, is 40 in. in diameter and has a sweeping width of 8 ft. It is driven mechanically through a twin-disc clutch. The machine also is equipped with a hydraulically controlled snow discharge deflector for distributing the snow fore and aft to prevent switch stands from being buried, and a snow plow which is mounted at the rear of the frame. Power is furnished by a 140-hp Cummins diesel engine. Movement along the track, in either forward or reverse, is accomplished through a hydrostatic transmission at speeds up to 20 mph. Normal working speed, says the manufacturer, is up to 7 mph. *Bert Pyke Limited.*



Variable-Load Brake (RA-8)

Where relation of light-car weight to loaded-car weight has been such that minimum AAR requirements for iron-shoe brakes could not previously be met without empty-load-brake equipment, the Unifrate Variable-Load brake has made it possible to provide braking performance superior to minimum AAR requirements. The brake assembly consists of standard cast-steel unit brake beams supported conventionally in the truck side-frame pockets; hanger levers which abut the brake beams and force the shoes against the wheels, and rotochambers having 6-in. travel which are pinned to the lower ends of the hanger levers for transmission of braking power. The hanger levers are suspended from the truck bolster by means of brackets, riveted or bolted in place. The combination of beams mounted on unsprung members and the hanger levers mounted on the spring-supported bolsters results in a braking system which develops a variable shoe load. The mechanical advantage of the levers increases with spring deflection. *American Steel Foundries.*



Clearance Detector (RA-9)

A reflex system of optics (split beam principle) operating from 115 volts 60 cps and consuming about 100 watts responds to 1-in.-diameter vertical obstructions at speeds up to 60 mph. The unit is independent of wind sway, because all of the electrical equipment is mounted on one side of the beam, and only a retrodirective reflector is needed on the opposite side.

The reflector may be placed up to 75 ft away in clear weather. Where the reflector is backed by brightness (such as sky), it must be mounted on a 2-ft-by-2-ft panel to obscure that part of the brightness which is directly in line with the reflector.

The clearance detector can be arranged for manual testing by remote pushbutton; for manual resetting, also remotely. Non-operation due to smoke, fog, lamp burnout, provides an alarm which cannot be reset; hence, indicates "out-of-service." The unit can be tied into the track relay for occupancy; or a Raco magnetic detector and timing unit can be used to trigger it. *Railroad Accessories Corp.*

Hand Cleaner (RA-10)

Neither ammonia nor harsh abrasives are contained in Wilclean hand cleaner developed to protect mechanics' skin against chapping, dryness, cracks and infection. It contains lanolin and a healing agent, Hexachlorophene. The cleaner, which may be used without water, liquefies at the touch, or with hot, cold, or salt water. Chemical structure, according to the manufacturer, will not break down under extreme climate conditions. *Wilco Co.*

Skin Cream (RA-11)

Kerodex, a barrier cream now in use in diesel shops, is said to protect handlers of gasoline, fuel oil, solvents, and other petrochemical compounds against painful skin rashes, contact allergies, or the absorption of toxic compounds through the skin. Kerodex (R) 51 is for dry or oily work. Where perspiration is a factor, as in warm areas, Kerodex 71 (for wet work) is applied first, wi h an over-application of Kerodex 51. *Ayerst Laboratories.*

Welding Electrode (RA-12)

The Airco Easyarc 27 (AWS classification E-6027) is an improved iron powder, iron-oxide-type electrode for welding mild steel horizontally and in-position. It is said to transfer metal with a minimum of slag. It is available in 18-in. lengths and diameters of 3/16, 7/32, and 1/4 in.; operates on a-c or d-c, either polarity, and restrikes an arc when hot or cold. The electrode has been approved by the American Bureau of Shipping. *Air Reduction Co.*

DIESEL-HYDRAULICS

(Continued from page 10)

on the performance of only six units, especially when they are labeled "experimental."

No real test data have been released on the diesel-hydraulics, but with a transmission efficiency (82%) about the same as the electric transmission it can be assumed that fuel costs are comparable. Maintenance costs are also unknown, but it is difficult to see how they could be determined accurately on the basis of experience with only six units. Moreover, experimental locomotives always get special attention. A true appraisal of this cost factor can only be made after several years' routine operation without the "kid-glove" treatment.

Entering into the economic picture is the important "trade-in allowance" currently offered by domestic diesel-electric builders. Substantial savings are available to the railroads when they trade old models for new ones because of re-use of certain components from the old power. These savings would disappear in buying hydraulics, because most of the trade-in allowances are for electrical equipment and electric-motored trucks, of no value to hydraulic builders.

Dividends Declared

CLEVELAND & PITTSBURGH.—7% regular, 87½¢, quarterly; 4% special guaranteed, 50¢, quarterly, both payable Dec. 3 to holders of record Nov. 9.

DAYTON & MICHIGAN.—8% preferred, $1, quarterly, payable Jan. 2, 1963, to holders of record Dec. 14.

DELAWARE.—$1, semiannual, payable Jan. 2 to holders of record Dec. 14.

DENVER & RIO GRANDE WESTERN.—25¢, quarterly, payable Dec. 17 to holders of record Dec. 3.

ELMIRA & WILLIAMSPORT.—Preferred, $1.62, semiannual, payable Jan. 2 to holders of record Dec. 20.

ERIE & PITTSBURGH.—guaranteed, 87½¢, quarterly, payable Dec. 10 to holders of record Nov. 30.

ILLINOIS CENTRAL.—50¢, quarterly, payable Dec. 17 to holders of record Nov. 9.

MOBILE & BIRMINGHAM.—4% preferred, $2, semiannual, payable Jan. 2 to holders of record Dec. 1.

NEW YORK, CHICAGO & ST. LOUIS.—common, 50¢, quarterly, payable Jan. 2, 1963, to holders of record Nov. 23.

NORFOLK & WESTERN.—$1.25, quarterly; $1.25, extra, both payable Dec. 10 to holders of record Nov. 9.

NORTHERN CENTRAL.—$2, semiannual, payable Jan. 15, 1963, to holders of record Dec. 31.

NORTHERN OF NEW HAMPSHIRE.—$1.50, quarterly, paid Oct. 31 to holders of record Oct. 17.

PHILADELPHIA, GERMANTOWN & NORRISTOWN.—common, $1.50, quarterly, payable Dec. 4 to holders of record Nov. 20.

PHILADELPHIA & TRENTON.—$2.50, quarterly, payable Jan. 10, 1963, to holders of record Dec. 31.

PITTSBURGH, FT. WAYNE & CHICAGO.—common, $1.75, quarterly, payable Jan. 2 to holders of record Dec. 10; 7% preferred, $1.75 quarterly, payable Jan. 8 to holders of record Dec. 10.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable Dec. 3 to holders of record Nov. 20.

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In the Railway Age Group, your ads are read with real interest. Readership of Railway Age is the most thorough of *any* of the 19 business publications studied by Mills Shepard, Inc.

No wonder Jackson placed 43 pages of advertising in the Railway Age Group in the first nine months of this year alone. No wonder approximately 70% of *all* advertising to the railroad industry appears in the Railway Age Group! Ask your Railway Age man for the full story.

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THE RAILWAY AGE GROUP

Railway Age • Railway Track and Structures • Railway Locomotives and Cars • Railway Purchases and Stores • Railway Signaling and Communications • International Railway Journal

PEOPLE IN THE NEWS

BALTIMORE & OHIO.—J. William Phipps, Jr., Senior Vice president, retired Oct. 31, after 48 years' service.

CANADIAN NATIONAL.—Robert G. McGrath appointed information officer, Great Lakes region, Toronto, Ont., succeeding **D. S. Law,** transferred.

CHESAPEAKE & OHIO.—Howard W. Robinson appointed assistant freight traffic manager, Cincinnati, Ohio. **Charles C. Hoover** named general agent, Pittsburgh, Pa., succeeding Mr. Robinson.

CHICAGO & NORTH WESTERN. — James P. Daley and **John C. Danielson** appointed general attorneys, and **William F. Cottrell** named attorney, all at Chicago.

CHICAGO SOUTH SHORE & SOUTH BEND.— M. J. Heinen. general agent, named general freight agent and will assume the duties of **Leslie W. Hodgetts,** coal traffic manager, Chicago, who retired Oct. 31.

COLORADO & SOUTHERN.—J. W. Terrill, general manager Lines West, Burlington, Omaha, elected vice president, C&S, Denver, to replace **E. G. Wesson,** who retired Oct. 31.

DELAWARE & HUDSON.—Francis J. Smith, district sales manager, Boston, Mass., appointed New England sales manager there, succeeding **Arno P. Lehman,** who retired Nov. 1 after over 46 years of service with the D&H. **Wallace E. Barrows,** assistant district sales manager, Portland, Me., appointed district sales manager, Boston, succeeding Mr. Smith. **Paul E. Smiddy** named sales representative, Portland, replacing Mr. Barrows.

DETROIT & TOLEDO SHORE LINE.—Don H. Mitchell, Sr., appointed general agent, Detroit, Mich.

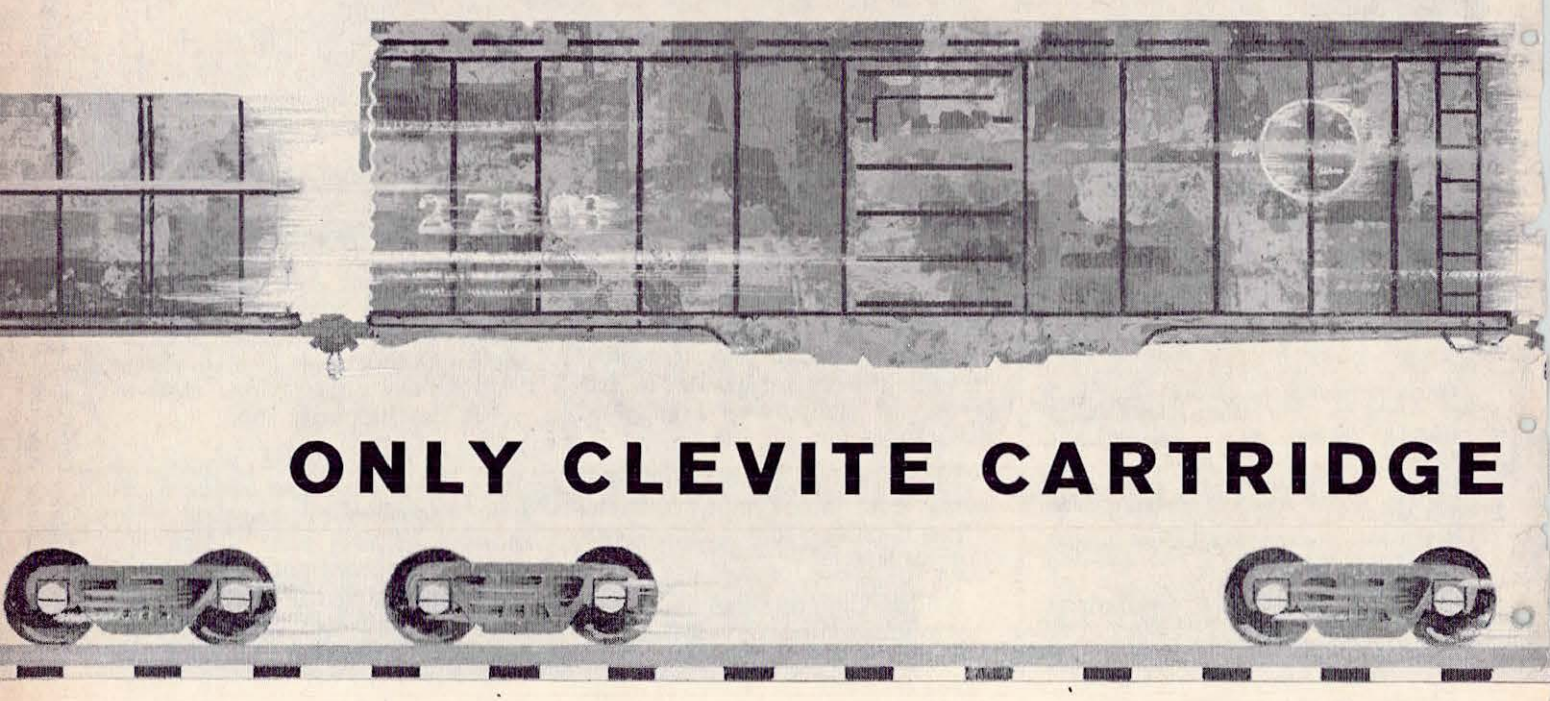
ELGIN, JOLET & EASTERN.—James F. Shimeall, assistant supervisor of personnel, named to the newly created position of labor relations counsel, Chicago.

JERSEY CENTRAL.—Earl T. Moore retired Oct. 31 as chief executive officer, after almost 50 years in the railroad industry. Mr. Moore will continue as chairman of the board at least until the annual meeting in December. **Perry M. Shoemaker,** who succeeded Mr. Moore as president on April 1, has been named chief executive officer and president.

J. W. Terrill
C&S

C. G. Hammond, Jr.
NF&D

LOUISVILLE & NASHVILLE.—G. T. Bruenig appointed trainmaster, Knoxville, Tenn., succeeding **Harold L. Endicott,** named inspector of transportation, Louisville, Ky., to replace **Robert H. Short,** retired.



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Floyd R. Brown
Unitcast

Daniel M. Lyons
Stanray

MAINE CENTRAL.—S. P. Ruth, assistant manager—car accounting and statistics, promoted to assistant superintendent, car service, Portland, Me.

NORFOLK, FRANKLIN & DANVILLE.—This newly chartered road, a wholly-owned subsidiary of the Norfolk & Western, has been authorized by the Interstate Commerce Commission to take over and operate the former Atlantic & Danville. The NF&D began operation under its new ownership on Nov. 1, with **Charles G. Hammond, Jr.,** as vice president and general manager. Mr. Hammond, former superintendent, Radford division, N&W, has been designated chief operating executive, reporting to **Stuart T. Saunders,** president of both the NF&D and N&W. **Rolfe E. Petterson** elected comptroller and **Charles R. Fichtenger,** secretary-treasurer. Mr. Petterson is also comptroller of the N&W and Mr. Fitchtenger is treasurer.

PENNSYLVANIA.—George F. Daniels, superintendent of personnel, Northern region, Buffalo, N. Y., transferred to the New York region, succeeding **Norman J. Lynch,** who retired Oct. 31. **George F. Bent,** examiner, system labor relations department, named supervisor of labor relations, New York region, succeeding **Norman M. Berner,** appointed superintendent of personnel, Southwestern region, Indianapolis, Ind.

M. K. Clark, district engineer, Lake region, Canton, Ohio, transferred to the Philadelphia region, Harrisburg, Pa. **D. N. Worfel,** assistant engineer tests—maintenance of way, Altoona, Pa., appointed assistant district engineer, Harrisburg, **W. H. Miller,** superintendent locomotive equipment, Philadelphia, appointed master mechanic there.

SOUTHERN PACIFIC.—Claude E. Peterson, vice president, San Francisco, Calif., retired Oct. 31 after 45 years with the SP.

Supply Trade

Floyd R. Brown has been elected executive vice president, **Unitcast Corp.,** Toledo, Ohio. Mr. Brown was formerly vice president—marketing. He will be responsible for the over-all sales, marketing and general operation of the corporation in addition to the **Wine Railway division.**

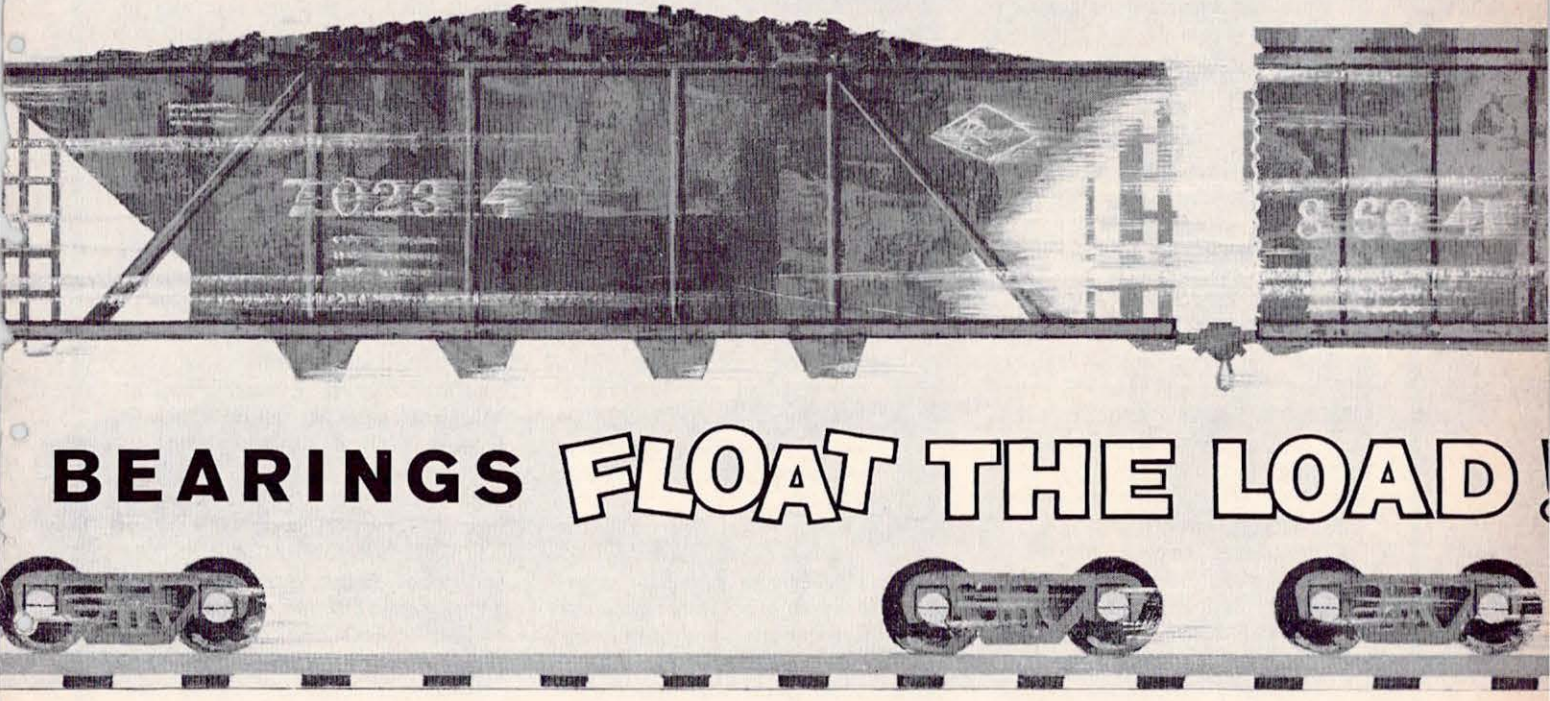
Stanray Corp. has announced the appointment of **Daniel M. Lyons,** formerly general manager, Hammond Operations, **Standard Railway Equipment Division,** as president and general manager, **Stanray Products Division,** Hammond, Ind.

OBITUARY

John C. Kimes, 85, retired assistant freight traffic managr, **Baltimore & Ohio.** died Oct. 24 in Ingalls Memorial Hospital, Harvey, Ill.

Benjamin James Tarbutton, 77, retired president, **Central of Georgia,** died Sept. 19 in Sandersville, Ga.

John E. Vraney, 61, auditor of station accounts and overcharge claims, **Milwaukee,** died Oct. 25.



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CLEARED TO PROGRESS
PRI

Another Dust Gatherer?

Advocates of continued highway construction for urban transportation have a new bit of scripture —with which we take strong issue.

This most recent report, to the White House Conference on Civilian Technology, is entitled, "Technology and Urban Transportation." Its authorship is tri-partite—John R. Meyer, a Harvard economist; John F. Kain, an Air Force Academy economist who used to be with the Rand Corp.; and Martin Wohl, ex of MIT and now with the Commerce Department.

(Prof. Meyer is the co-author—along with three Harvard colleagues —of the well-received treatise "Competition in the Transportation Industries," which deals primarily with freight transportation and ascribes a useful economic function to the railroads. In the area of urban transit, however, his estimation of the function of the steel wheel on the steel rail—as reflected in this new study—is more than a trifle dim.)

Despite a page-long disclaimer preface and a liberal sprinkling of ifs, buts and assumptions throughout the 131 pages of text, the piece adds up to one thing: A hard-sell for private autos and express buses (and more highway spending) as the best way out of urban transportation problems. It would largely relegate modern rail rapid transit (so successful in Toronto, for example) to a unique transport job—movement of people in and out of New York City.

This is the second recent study to cheer the hearts of the highway builders (first was the so-called CATS report on Chicago—RA, Sept. 17, p. 59). CATS had its shocking elements—but in some ways the Meyer-Kain-Wohl piece is even more astonishing.

Government being what it is, the professors' work will likely gather dust and, eventually, be forgotten. Far more comprehensive and less iffy studies on transportation—among them the Weeks Report and the Doyle Report—have landed in Washington's oblivion file.

At any rate, the Meyer-Kain-Wohl essay appears to be crowded with paradoxes and contradictions. At one point it promises to sail off into the realm of sociology and segregation. At another it suggests express bus-oriented transit schemes which, we would guess, could only be worked at fantastic cost (at the same time the authors take rail transit planners to task, obliquely, for "the current proliferation of proposals to employ expensive rail transportation facilities as a means of serving and strengthening urban areas").

Some of the examples of the far-out approach to transit:

- At a time when most planners agree that the problem is to move people, not vehicles, the professors are marching in the other direction. There would seem to be "considerable potential," they declare, "for specialized types of bus and jitney services and for greater use of taxicabs on both commuter and other public transit trips."
- The study concedes that highways do, indeed, become congested at peak hours—and it spreads out several approaches to relieving the jam, or at least compacting the units which contribute to it. There's this gem: "If all urban commuters were to employ cars the size of the smaller European cars and if each car were still to carry the same average number of passengers at the peak hours it has been estimated that the passenger capacity of major expressways could be increased by 30% to 50%." The study jounces along with talk of "some sort of rationing or controls" to achieve "exclusive utilization of highway facilities during rush hours by small cars." But, it concludes quickly, "there are large numbers of uncertainties here that could only be clarified by additional study"—such as the problem, we would say, of the rotund commuter who just doesn't fit in VW-size transportation.
- Delicate social and economic issues" are dealt with rather frankly. The professors ponder the degree "to which a desire for social or racial segregation is responsible for declines in transit patronage." They advance the theory that tomorrow's urban transport users may come largely from opposite ends of the social-economic scale—and "past experience suggests that it may be very difficult to get these rather diverse groups to travel in the same vehicles."
- Cost analyses are cited to prove the economy of auto and bus transportation (as against rail transit). But explanations are notable for their murkiness. It would seem difficult to say with any degree of assurance just what costs are figured in, what ones are sidetracked and how the whole process is designed.
- The authors seem to prefer the phrase "urban transportation" to "mass transportation"—and there's a reason. The best future public system, they say, "may not be mass transportation as conventionally conducted in the past. Indeed, there would seem to be a considerable probability that the successful public transit system of the future will be highly diversified, with special services specially tailored to meet special needs and tastes." Moreover, they contend, "an economically viable public transportation system will have to be capable of operating efficiently at relatively low density and with considerable ubiquity and flexibility."

All this trails after three prefacing paragraphs which might—but don't, really—take the sting out of what follows. All they were trying to do, the authors say, was to identify "useful technological research areas." To do this, "some limited system design and analysis was performed and alternative transport modes were compared. Though incomplete, we consider the analysis and costing sufficient for the purpose stated."

In the report, the professorial triumvirate explains, "we emphasize system-wide analysis in order to project the value and viability of particular transport modes or conbinations thereof in specific metropolitan areas. This report does not provide such analysis and no inference should, therefore, be drawn from it regarding the feasibility of specific transport systems."

Still, the economists declare, "our findings do suggest some reasonable alternative transport systems. . . ."

Then comes the clincher: "In this context, we urge planners and engineers to consider public and private transport systems as components of an over-all system, to conduct what in fact are urban transportation system analyses, and to consider and make more efficient use of the existing and extensive urban transportation plant."

Yes, that would seem logical.

—Gus Welty

D.C. Planners Give Nod to Rail Transit

► **The Story at a Glance: A $793-million rail rapid transit plan for Washington, D. C., was unveiled at the White House last week as voters in two other traffic-choked cities—San Francisco and Atlanta—prepared to cast yeas and nays on their own transit proposals. The 83-mile rail network proposed for Washington would permit a sharp curtailment in freeway building and would, its planners assert, be debt-free in 30 years.**

To President Kennedy's desk last Thursday came a long-awaited prescription, ordered by Congress, for easing the traffic pains of the District of Columbia.

The mass-transport plan submitted to the White House by the National Capital Transportation Agency departed significantly from a $2.5-billion program recommended three years ago in the Washington Mass Transportation Survey:

- The new plan calls for expenditure of $793 million on an 83-mile surface-and-subway rail transit system —$300 million more than the earlier survey recommended.
- It recommends an $826-million outlay for highway construction—$600 million less than was proposed in 1959.

The Washington plan must be approved by Congress. Two other rail-oriented transit programs will go before voters in this week's general election. In the San Francisco Bay Area, a $792-million general obligation bond issue to finance a 75-mile, three-county aerial, subway and surface rail transit system will be up for voter approval (RA, June 4, p. 47). Georgia voters, meanwhile, will decide the fate of a constitutional amendment that would permit any Georgia county to engage in mass transportation—first step toward implementation of a 97-mile rail transit system for Atlanta (RA, Sept. 10, p. 60).

Like the San Francisco and Atlanta planners, the National Capital Transportation Agency arrived at the conclusion that a rail transit system must be the keystone of any effective, long-range program to unsnarl traffic.

NCTA told President Kennedy that it rejected the 1959 plan—calling for "a very large highway network and a small rapid transit system"—because:

"a. It would not provide satisfactory service. As a major example, it would provide only bus service to Prince George's County and to most of Fairfax and Arlington Counties, whereas predicted traffic volumes in those counties would clearly support rapid transit service.

"b. It would cost far more than the Agency's recommended system. In capital outlay alone, the cost would be $367 million greater.

"c. It would displace more than 33,000 persons, six times the number displaced under the recommended system."

NCTA summarized its proposal as follows:

"For a balanced transportation system, the national capital region requires a sizeable highway network—though not as large as that proposed in 1959—improved bus service, and a rail rapid transit system reaching from downtown Washington into the suburbs.

"The heart of the rapid transit system is a subway with stations located within five minutes' walk to work for almost 80% of the people employed downtown. From the downtown subway, eight rail lines run through the District and into the outlying regions. Six of the lines use the rights-of-way of existing railroads or run along the median strips of freeways.

"The proposed rail transit system is set apart from existing systems in this country by:

"1. Its use of modern equipment—attractive, lightweight, air-conditioned cars, insulated against noise and capable of high-speed operation.

"2. Its emphasis on meeting the needs of the person who must, or wants to, drive his car part of the way. Stations in outlying sections will be planned so that the traveler who arrives by automobile can park his car conveniently and need walk only a short distance to the train.

"In addition to the rapid transit system, bus services will be substantially improved. Stations and parking areas will be provided for bus passengers and an extensive bus feeder system will carry passengers to and from rapid transit stations."

As for financing the rapid transit system, the Agency made these proposals:

1. $530 million through private loans in the public bond market to be guaranteed by the federal government and to be paid by the year 2000.

2. $63 million through net Treasury loans—to be paid "considerably" before 2000.

3. $180 million through grants from the federal, District and local governments, to be repaid after retirement of debt.

4. $20 million through revenues.

"Given this financing plan," President Kennedy was told, "the system would be self-sufficient and in 30 years it would be debt-free."

President Kennedy expressed the hope that the recommendations would be a "significant contribution" to solving the capital's transportation problems. He said the report will be referred for comments to the District of Columbia Commissioners and to other federal departments and agencies prior to its transmittal to the next session of Congress.

If the Agency's timetable is followed, work will begin immediately on a final design for the rapid transit system and construction will start in 1964, with the first section going into service by 1968.

As envisioned by NCTA, the hub of the transit system would be the downtown subway. Part of, or connecting with, this subway would be eight rail lines as follows:

"1. Northwest-Bethesda. A line from Pooks Hill in Montgomery County will pass through the northwest corridor of Bethesda and the District, down Connecticut Avenue to Farragut Square and across downtown to the Capitol. For most of the way in the District the line will be tunneled underground.

"2. Columbia Heights-Petworth. This relatively short, two-mile spur will provide service for most of north central Washington. The line will be underground most of the way. It will begin near Georgia and New Hampshire Avenues, proceed to Columbia Heights, and join the Northwest line at 19th and Florida Avenue.

"3. Rockville-Silver Spring. Using the right-of-way of the Baltimore & Ohio Railroad, a major radial will pass through central Montgomery County, the upper north central portion of Washington, and a portion of northeast Washington. It will go underground at Union Station and lead directly to the Capitol and downtown.

"4. Route 95-Queen's Chapel. A line on the median strip of Interstate Route 95 will originate outside the Capital Beltway, pass through northwestern Prince George's County and join the Rockville line inside the District of Columbia.

"5. Bowie-Cheverly. Modern commuter railroad service will be provided on the Pennsylvania Railroad from

Bowie through Lanham and Cheverly. All stations will be in Prince George's County. The service will be fast and frequent. Trains will bring passengers directly to the subway platforms at Union Station for an easy transfer to all downtown points.

"6. Henson Creek-Anacostia. A combined surface and subway line will bring passengers from southeast Prince George's County and southeast Washington to downtown. A major transfer station in Anacostia near Good Hope Road will connect with bus lines serving the corridor between South Capitol Street and Pennsylvania Avenue. After crossing the Anacostia River, the line will lead into the Capitol area and thence downtown.

"7. Springfield-Alexandria. This line will use the right-of-way of the Richmond, Fredericksburg & Potomac Railroad and the Southern Railway over much of its length. The line will begin in Springfield and then pass through Alexandria to the Pentagon. It will then proceed under the Potomac into downtown.

"8. Route 66-Rosslyn. Using the median strip of Interstate Route 66, in Fairfax County and portions of Arlington, a rapid transit line will provide service from the city of Fairfax through central Fairfax County, East Falls Church, and North Arlington."

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YEAR 'ROUND POOL

Parity at Ogden Denied Rio Grande

The ICC has refused to modify the provision of a 1923 order which requires the Southern Pacific to solicit traffic on a preferential basis for movement over its joint route with the Union Pacific through Ogden, Utah.

The provision was one of the conditions under which the Commission approved SP's control of Central Pacific, its purpose being to prevent the former from diverting traffic from the Overland Route to its own southern route via El Paso, Tex. Modification was sought by the Denver & Rio Grande Western which asked that the name of UP be stricken from the condition so Rio Grande would have "equal opportunity" to compete for the interchange of SP traffic at Ogden.

Rio Grande was a party to the 1923 case and favored the condition. Its petition for modification, filed in 1957, was based on changed conditions, including the improvement and shortening of its Denver-Ogden line which gives it a competitive position it did not have 39 years ago.

The Commission's denial of the petition came in a report by Commissioner Tuggle, which was a supplemental report in F.D. 2613, the Central Pacific control case. It was a 6-to-5 decision, the dissent by Commissioner Webb having been subscribed to by Chairman Murphy, Vice-Chairman Walrath and Commissioners Hutchinson and Herring.

In denying Rio Grande's petition, the majority noted that road's gains in the competition for traffic moving through Ogden, and how it has "prospered and improved its facilities and services notwithstanding the claimed adverse effect of the condition." The Commission went on to identify the condition as only one of five imposed in the control case to protect the Overland Route.

"In our opinion, these five conditions constitute a single package, all designed to the same end, and it would be unjust and unreasonable to single out the last for modification without concurrent consideration of the others, which impose obligations in respect of through train service, schedules, and rates. The existing conditions are consistent with the purposes of the Pacific Railroad Acts, and one of the purposes of those conditions is to protect the rights of the Union Pacific and the public under those acts, which are still in force . . ."

As Commissioner Webb interpreted them in his dissenting opinion, the Pacific Railroad Acts require "nothing more" than that SP and UP "should not discriminate against each other"; and "it would be a perversion of the acts to say that they require either the SP or the UP to prefer each other to the disadvantage of another connecting line such as the Rio Grande."

The dissenters would have found that, "in view of changed circumstances and conditions," the condition is "no longer consistent with the public interest." They would have modified it along lines suggested by Rio Grande, i.e., "by striking therefrom the name of Union Pacific as the only connection of Southern Pacific on traffic moving via Ogden."

PRR Would Place N&W Stock in Trust

The Pennsylvania went before the ICC last week with a proposal that its holdings of Norfolk & Western stock be placed in a voting trust under arrangements which would deprive PRR of any right to participate in N&W management. Pennsy has a very uncomplicated reason for preferring to put the stock in trust rather than to sell it: Holdings of N&W are providing PRR with annual dividend income of more than $12 million—and the road wants to retain that stable inflow during the "difficult shakedown period" which would follow PRR's merger with the New York Central.

Pennsylvania had volunteered earlier to dispose of its N&W stock (and did so far as the preferred is concerned). But, David C. Bevan, PRR vice president-finance, told the Commission, sale of N&W common "presents a difficult problem . . . To liquidate approximately 3 million shares even over a 10-year period would mean disposing annually of an amount equivalent to the total volume of this stock on the New York Stock Exchange in 1959, when 303,000 shares were traded."

He also pointed out that "although the merged (PRR-NYC) will have combined revenues at 1961 levels of about $1.4 billion, it cannot look forward during this (shakedown) period to net earnings which are commensurate with the volume of business handled."

Market Outlook

Carloadings Rise 0.2% Above Previous Week's

Loadings of revenue freight in the week ended Oct. 27 totaled 614,632 cars, the Association of American Railroads announced on Nov. 1. This was an increase of 1,409 cars, or 0.2%, compared with the previous week; a decrease of 32,917 cars, or 5.1%, compared with the corresponding week last year; and a decrease of 6,175 cars, or 1.0%, compared with the equivalent 1960 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, October 27

District	1962	1961	1960
Eastern	83,031	90,906	86,281
Allegheny	94,933	102,894	96,908
Pocahontas	51,630	55,964	48,929
Southern	118,016	117,847	117,749
Northwestern	88,651	95,403	88,954
Central Western	134,064	137,544	136,313
Southwestern	44,307	46,991	45,673
Total Western Districts	267,022	279,938	270,940
Total All Roads	614,632	647,549	620,807
Commodities:			
Grain and grain products	65,485	60,439	68,383
Livestock	9,431	8,904	10,779
Coal	110,182	116,603	104,132
Coke	5,957	7,535	5,634
Forest Products	38,533	39,536	38,419
Ore	36,424	46,664	36,597
Merchandise l.c.l.	22,240	27,483	35,118
Miscellaneous	326,380	340,385	321,745
October 27	614,632	647,549	620,807
October 20	613,223	650,958	637,573
October 13	606,778	642,155	653,277
October 6	594,722	639,784	645,986
September 29	596,862	637,294	632,227
Cumulative total, 43 weeks	23,997,261	23,664,850	25,837,637

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Oct. 20 totaled 15,466 cars, compared with 13,033 for the corresponding 1961 week. Loadings for 1962 up to Oct. 20 totaled 568,174 cars, compared with 471,459 for the corresponding period of 1961.

IN CANADA.—Carloadings for the seven-day period ended Oct. 14 totaled 66,822 cars, compared with 78,914 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Oct. 14, 1962	66,822	22,362
Oct. 14, 1961	68,517	22,894
Cumulative Totals		
Oct. 14, 1962	2,814,266	940,926
Oct. 14, 1961	2,738,886	958,716

New Equipment

FREIGHT-TRAIN CARS

► *Erie-Lackawanna.*—Is undertaking a repair program to upgrade 700 50-ton box cars at its Meadville, Pa., shops. Eight cars are being completed each day. Repairs consist of relining the interior walls, new floors, repainting of the exteriors, and other reconditioning to bring the cars up to the standard for the highest classification of loading.

► *Norfolk & Western.*—Ordered 1,000 85-ton, roller bearing hopper cars from its Roanoke, Va., shops at a cost of approximately $10,900,000. Production on the new order will begin after a 1,000-car order (placed last summer but not announced) is completed in January 1963. Harry C. Wyatt, N&W vice president and general manager, commented that "authorization of the order was encouraged by the new U.S. Treasury Department railroad equipment depreciation schedules and the investment tax credit provisions of the Revenue Act recently passed by Congress."

► *Pacific Fruit Express.*—Ordered 500 multi-purpose mechanical refrigerator cars from Pacific Car & Foundry. Delivery of the cars is expected to begin in February 1963 and to be completed by April. The cars will be equipped with cushion underframes, load dividers and roller bearings, as well as 8-ft-wide doors to facilitate lift-truck loading and unloading. The cars will be almost 57 ft long and capable of carrying up to 70 tons of freight in the 4,000-cu-ft lading compartment. Mechanical refrigeration units in the cars will be able to maintain constant temperatures ranging from below zero to 70 degrees F for as long as 20 days, without refueling. The high cubical capacity of the cars is designed to make them attractive to shippers of both eastbound perishables and return loads of general freight.

PASSENGER-TRAIN CARS

► *Port Authority-Trans Hudson Corp.*—Is seeking bids for supply of 250 air-conditioned cars for the former Hudson & Manhattan. Estimated cost: $25,000,000. Delivery is expected to begin by March 1964. The new cars will replace 186 units up to 54 years old.

LOCOMOTIVES

► *Norfolk, Franklin & Danville.*—Purchased two 1,800-hp diesel-electric locomotives from Alco. (NF&D was formerly the Atlantic & Danville.)

New Facilities

► *Northern Pacific.*—Ordered microwave equipment from Motorola for installation between Seattle, Wash., and Portland, Ore., 178 miles. In addition to four repeater stations, terminal microwave stations will be installed at Centralia and Tacoma, Wash. The initial system will have 16 voice channels and five telegraph channels. The transistorized equipment includes MR-50 RF, MC-50 single sideband multiplex, and MT-50 telegraph equipment. Also included is the MA-50 alarm equipment which automatically reports any outages along the system.

REA Must Clear Some 'Tacking'

REA Express must obtain authority from the ICC to continue some all-motor operations over routes where it is now "tacking." That means offering through truck service by tying together routes for which operating authorities are contained in separate certificates. Meanwhile, the Commission cleared REA tacking in situations where there is a prior or subsequent haul by rail, and made other determinations which, it said, "could greatly facilitate the expansion of REA operations by motor vehicle."

The determinations were made in No. MC-66562 (Sub-No. 1515). Most important of them was the Commission's interpretation of tie-to-rail restrictions as they apply to REA—a finding that special showings are not required to avoid prior-or-subsequent-rail-haul conditions, provided the trucking operations are supplemental to REA's "express company" operations (RA, Oct. 29, p. 68). Specifically involved were five REA applications for trucking rights in the New England area, but the Commission, as its report by Commissioner Tucker said, used the case "as a vehicle for the reappraisal and restatement of the requirements and policies which we believe should obtain with respect to grants of motor carrier operating rights to REA."

The report was a set-back for American Trucking Associations, which failed to get a new and restricted definition of express service. ATA's presentation in general was an undertaking to have the Commission halt what ATA called REA's program of converting its operations from "true express service" to "nationwide freight operations by motor vehicle."

In developing the tacked all-motor routes for which it must now get clearance, REA has relied on a Commission report which said "the condition requiring an immediately prior or an immediately subsequent movement by rail would be satisfied by an immediately prior or immediately subsequent movement by motor vehicle in substitute motor-for-rail service." "Without comment on the validity" of that position, there being conflicting statements in other previous decisions, the present report said that REA's tacked all-motor operations under certificates containing rail-haul restrictions, which are those here under consideration, "are not permissible."

Because REA said such an interpretation would have the effect of putting it out of business in many parts of the country because the proscribed operations are "of such duration," and because the public interest is affected, the Commission decided to leave things as they are for 90 days from the report's service date of Oct. 24. During this time, REA may file "appropriate petitions for modifications" of the certificates involved, the report said.

"Other parties will then have an opportunity to represent their interest, and the performance of such operations may then be resolved in a suitable manner. Should no such petitions be forthcoming, we shall then consider this issue closed."

Another issue was the limits of REA's trucking operations with respect to commercial zones and terminal areas. It arose because terminal areas as established by REA tariffs may differ from commercial zones and terminal areas fixed by the ICC for truckers.

The Commission decided to consider this matter fully in a separate proceeding, which it will institute. Meanwhile, the present report determines generally that an express company which utilizes regulated carriers is not entitled to have them provide any service for which they lack specific authority, i.e., when REA uses independent truckers, or operates under its own truck certificates, "it is bound by all limitations inherent in such operating authority, including any which limit the performance of pick-up and delivery service to a specifically defined motor carrier terminal area."

REGULATORY HORSE SENSE . . . . . an Editorial

The ICC's board of suspension undertook last March an investigation (No. 34016), on its own motion, of Plan II TOFC rates on citrus fruits between 33 Florida origins and a half-dozen destinations in the Washington, Baltimore, Philadelphia and New York areas. The rates are stated in dollars per trailerload and prior to March 5, 1962, were available only if the trailers were proffered two at a time, each such pair to be moved on a single flat car. On March 5, the railroads involved waived the two-trailer provision, and began accepting single trailers with no change in the charge per trailer. The change is under suspicion, but not suspension, by the ICC.

Using conventional "Form A" costs, the revenues on this traffic —on the one-trailer basis—will average slightly less than the cost estimates. However, actual movement of this traffic in a test period during March attained an average of 1.65 trailers per flat car —an average which should improve as the volume of the traffic grows; or as other trailers become available to fill out flat cars to two trailers each. Such increase in trailers per car would, of course, reduce unit costs and make the traffic definitely profitable.

Examiner Kenneth J. McAuliffe, who heard the case, has prepared a proposed report, approving the rates, particularly in view of the fact that they were made by the railroads to meet competition from "exempt" carriers.

In this paper's opinion, Examiner McAuliffe has reasoned soundly in his recommendations. There is hardly ever a new business venture started that is expected to pay its way fully on its opening day. If ordinary businesses had to make a showing of profits right at the outset, there would be mighty few new business ventures.

Examiner McAuliffe has endeavored to deal with a railroad pricing problem in exactly the same manner as any competent business man would deal with a similar problem in any other line of business. Sad to say, there seem to be mighty few regulators who see pricing problems from such a businesslike viewpoint. May the McAuliffe doctrine be approved, and may his clan increase!

Black Ink Chases The Blues

1962: What Kind of Year for the Railroads?

	1962 (EST)	1961	% INCREASE
Carloadings	28,850,000	28,583,780	0.9
Piggyback Loadings	705,000	591,246	19.2
Capital Expenditures	$838,500,000	$646,500,000	29.7
Net Income	$450,000,000	$382,000,000	17.8

► **The Story at a Glance: If railroad men look back on 1962 with more enthusiasm than they reserved for 1961, they're on solid ground—relatively speaking. There's hardly a statistical barometer that isn't higher now than it was at this time last year. Total carloadings are up. So are piggyback loadings. Capital expenditures and purchases of supplies and material are running well ahead of '61 figures. Best estimates available today indicate that these upbeat statistics will be reflected in railroad net income. The outlook: Net will range between $400 and $450 million—a distinct improvement over last year's depressed profit levels, but not much (if any) better than 1960 figures.**

With scattered exceptions, railroads are doing better this year than last—and their modestly improved profit picture is showing up in increased capital spending, increased purchases of fuel materials and supplies.

For the most part, the roads that made money at the three-quarter mark last year have made more money, January-September, this year. Many of those that were losing in 1961 are still losing—but not so much. A few 1961 deficits have been turned into 1962 profits—and in a few instances (e.g., C&NW and Milwaukee) the reverse is true.

In contrast to 1961, this year has been relatively stable from an income standpoint. Last year, the industry lost $12 million in the first quarter and showed net totaling only $62 million at the halfway mark. Then recovery of a sort set in and the railroads made $320 million over the last six months, to end the year with total net income of about $382 million.

This year, the industry posted net income of $66 million in the first quarter, $105 million in the following three months. Third-quarter net will probably approximate $121 million—and fourth-quarter projections point to a net ranging between $100 and $150 million (well below the October-December showing made in 1961).

Shippers advisory boards have forecast a slight increase in carloadings for the last three months of the year—but there's a nagging belief in the industry that these estimates may be optimistic, that loadings may actually drop a few percentage points below '61 figures.

If the shipper prediction of a 0.9% increase in loadings is accurate, the carriers would close out 1962 with total carloadings above 29 million, about 1.9% above last year. If, however, the more cautious observers' estimates prove out and fourth-quarter loadings decline from '61 figures, then the year-end total might well miss the 29-million mark. Barring a complete loadings nose-dive, though, the '62 total should reflect an improvement over 1961—in the 1% range, or perhaps a bit higher.

Unpredictable elements could, of course, throw present forecasts out of line—and the biggest of these may be the fast-changing international situation.

But, as the picture looks now, the railroads will likely wind up 1962 with total net income of $400 to $450 million—compared to $382 million last year and $446 million in 1960.

Among the encouraging indicators in '62 are these:

- Carloadings — for 42 weeks, they're running more than 365,000 above 1961 totals (but about 1.8 million under '60 figures).
- Piggyback loadings—they're running almost 100,000 ahead of last year's loadings for 41 weeks. And they've broken over the 15,000-per-week mark each week for the past month. There's a good possibility TOFC loadings may climb over 700,000 by year's end.
- Capital expenditures—when the totals are compiled after Dec. 31, they may well show capital spending up almost 30% from last year. Recent estimates put the '62 figure at $838,500,000—1961 checked in at just $646.5 million.
- Purchases of fuel, material and supplies—Railway Age estimates point to an increase of slightly more than 12%.
- Equipment purchases and deliveries—both locomotive and freight car purchases have bounced back. New types of power, new car designs have found improved markets. Over the first nine months of '62, the carriers received 29,652 new cars, up from 25,186 last year—and the Oct. 1 order backlog was about 1,000 cars higher than the Oct. 1, 1961, backlog.

Despite these brighter figures, there are a number of disturbing elements. Top among them, of course, is the fact that even a $450 million net income doesn't put railroad earnings at levels designed to produce a respectable return on investment or to encourage investors to put their money on the railroads.

In addition, there are a number of soft spots when individual-road performances are studied.

Chicago South Shore & South Bend turned a nine-month 1961 deficit into a profit this year—but much bigger roads, among them C&NW and Milwaukee, went the other way.

Among the profitable lines, Norfolk & Western, Southern, Louisville & Nashville, Santa Fe, Great Northern, Seaboard, Nickel Plate, Missouri Pacific, Western Maryland, Western Pacific and a number of other roads improved their net this year. But a few of the big earners—Union Pacific and Illinois Central, included—are showing reduced earnings for the first three quarters.

In the East, the story is largely one of reduced deficits. Erie-Lackawanna cut its losses from almost $24 million to $14.2 million; Lehigh Valley pared its deficit from $7.3 million to $3.5 million. Pennsylvania, a $12.7 million loser this time last year, posted a third-quarter profit in '62 and cut its nine-month loss to $4.9 million. But New York Central, which turned a $448,000 profit in third-quarter 1961, lost more than $3.5 million during the same period this year. NYC has, however, knocked its loss for the year down to $8.5 million (compared to $24.7 million last year).

YOU OUGHT TO KNOW

Abandonment of Chicago North Shore & Milwaukee, authorized by the ICC effective Nov. 2, has been postponed at least until Nov. 7, when a three-judge special court (required in cases involving a federal agency) will hear a complaint attacking ICC's abandonment order. Protestants are seeking to block North Shore abandonment by claiming ICC lacks jurisdiction.

Tariff simplifier proposed 7½ years ago by the former Railroads' Tariff Research Group has been rejected by the ICC. The proposal, made in a petition of April 11, 1955, asked the Commission to eliminate from its Traiff Circular No. 20 that part of Rule 66 which stipulates that tariffs providing minimum weights varying with the size of cars must include a rule protecting the applicable minimum weight for the size of the car ordered.

The Illinois Central is offering faster freight and piggyback service between Chicago and such southeastern cities as Atlanta, Jacksonville, Tampa and Miami. Train SE-1 will leave Chicago three and one-half hours later but maintain its former connections with southeastern roads at Birmingham. The new schedule will allow shippers four additional loading hours.

A 74% increase in net income for the first fiscal quarter of 1962 over the comparable quarter last year has been reported by Berman Leasing Co. Net income amounted to $427,000. Greatest gains came from new leasing contracts with private carriers and railroads, which were the fastest growing segment. The rise was attributed to increased piggyback operations whereby railroads are turning to leasing their entire trailer fleets to conserve capital for other purposes, cut maintenance costs and provide a built-in cost control procedure.

"Five years from now, if economy is the major criterion, 90% of all new rapid transit cars throughout the world will be built of aluminum," says Robert A. Campbell, railway specialist with Aluminium Limited, Montreal. He made the comment in connection with the announcement that Australia has ordered 120 double-decker rapid transit cars of aluminum for the Sydney transit system. Aluminum for the $6,750,000 Sydney order will be supplied by Australian Aluminium Company Limited, owned jointly by Aluminium Limited of Canada and British Aluminium Company Limited of the United Kingdom.

Second-morning piggyback delivery to Chicago is being offered by the Louisville & Nashville to Florida's citrus growers. The new service, said to be the fastest ever offered, will originate on the ACL at Lakeland, Fla., transfer to the L&N at Atlanta and to the Chicago & Eastern Illinois at Evansville, Ind. Second-morning delivery will also be made to Louisville, Ky., Cincinnati and St. Louis.

Railroad sales of AMSTED Industries increased by $6,800,000 in fiscal 1962, an 11% gain, the company reported last week. Sales of non-railroad products were up by $12,200,000, 26%. The company's net income for the fiscal year totaled $7,019,951, up 21% from the previous year.

The Western Traffic Association has changed its name to Western Railroad Traffic Association. A corresponding change has been made in the name of its executive committee and in its records.

Burlington's new, high-speed Express 14, operating on a 10-hour schedule between Omaha and Chicago, has cut transit time from 12 to 14 hours on eastern seaboard deliveries of fresh meat from Omaha packing houses.

In 25 years of litigation the Jersey Central "has a perfect record in that we have never won a case affecting any substantial tax relief," according to P. M. Shoemaker, president of the CNJ. He has called for "a tax policy that will not penalize railroads in their competitive problems with tax-free highways, tax-free airways, and tax-free waterways."

The ICC has provided interpretations and procedures whereby common and contract truckers of new automobiles may use rail piggyback and multi-level-car services and thus retain pre-rail and ex-rail hauls on business they have lost to the railroads. Where its interpretations do not clear the way for this, the Commission will consider trucker petitions for necessary modifications of the operating authorities. These determinations, announced in a report in No. MC-C-3024, do not preclude different findings in the general piggybacking investigation, Ex Parte 230, the Commission said.

Production of ACF Center Flows, the inverted - pear - shaped bulk commodity cars without center sills, has been transferred from the ACF Berwick, Pa., facility, now sold, to the Huntington, W. Va., plant which has previously built other types of covered hoppers and various types of open-top cars. ACF reports sale of more than 850 Center Flow cars, including 225 which were of aluminum construction.

The 1962 Seley Award for distinguished service to transportation will go to A. G. Anderson, general traffic manager of Mobil Oil Co. The award (a gold medal, plus a $1,000 transportation scholarship and an additional $1,000 grant to a university of the winner's choice) will be officially presented at the annual meeting of the Transportation Association of America in Chicago Jan. 30, 1963. (On Jan. 9, some 1,000 transportation executives and government officials will honor Mr. Anderson, at a luncheon in New York's Commodore Hotel, for more than 40 years of service in the field of transportation.)

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Will America Wake Up Now?

World War III moved right onto every American's front porch with the crisis over Cuba's nuclear armament. And it is going to stay there for a long time—even if the current dispute is settled peacefully.

Communism has long been triumphant in Eastern Europe. It dominates the bulk of the Orient. It has a strong bastion in Cuba—right at the heart of the Western Hemisphere. It has aggressive agents in every country that it does not already control. The so-called "free world" has no offsetting anti-communist missionaries in the communist countries. All we have to do is let down our guard just once—in a strategic situation such as that which arose in Cuba—and, in a matter of days, it could be taps for us and for civilization.

A kindly Providence, by repeated dramatic warnings (of which the Cuba incident is but the most recent of a series) is plainly trying to persuade us to forsake our profligate frivolity—and to act as we must to deserve and win victory in this global struggle.

What is going on in transportation and in union-management relations, for example, provides samples of the characteristic unwillingness of dominant political power in this country (in both political parties) to quit frittering away our substance in shamefully improvident behavior.

All literate people with even a suspicion of economic knowledge know that wages cannot keep on rising as they have been doing, without progressive destruction of the value of our money; yet little is done effectively to resist the pressure of the union organizations. Union leaders who know that this course is suicidal also know that victory in union politics usually goes to the leaders who make reckless demands—not to those with inclinations toward prudence.

In transportation, impartial and informed observers know that, probably—if economics rather than politics were the determinant—two-thirds of the nation's freight traffic would be moving by rail. Instead, only 43% is on the rails and the ratio is still declining. This ruinous waste of national resources is perpetuated and intensified by regulatory restraints on railroads that, at times, border on sadism.

It is further extended by infinite expenditures of public money in the provision of facilities for more costly types of transportation. (And compensatory charges are not levied on the users—nor is there ever any showing that similar expenditures on railway facilities would not be far more productive.)

This improvident course is defended and intensified by skilled manipulators of public opinion—whose obvious mental agility denies them the excuse that stupidity might offer, in extenuation of their anti-social behavior.

If the foregoing observations are reminiscent of the bad news as proclaimed long ago by the prophet Jeremiah, the resemblance is not unintentional. A fellow who detects arsonists at work, and who doesn't holler, becomes their inexcusable accessory.

The correction of these fatally dangerous conditions does not devolve entirely, or even primarily, on the nation's political leaders. It is also the duty of every citizen with intelligence enough to discern what is going on. Specifically, for railway people, action along the following lines is imperative:

- All-out effort to secure the earliest possible Congressional approval of the President's transportation program; and progress on all merger projects which are plainly in the public interest.
- Resolute insistence on early adoption of the major recommendations of the Presidental Railroad Commission on working rules.
- Energetic educational action among railroad people in cost ascertainment, with all-out effort toward improved understanding of cost economics—not only by railroad people, but also by regulatory authorities and the courts.
- Full cooperation with the military authorities in their program (as directed by the President in his April 5 message) to simplify paper work in connection with railway tariffs and rates.
- Energetic effort by railroads affected by the "commuter problem" to solve this problem in the light of local conditions—in a manner to protect community interests, minimize the spread of socialization and rid railroads of the obligation to provide red-ink services.
- Confrontation by railroads of their serious problem of an inadequate supply of capital (in competition with agencies which get their fixed plant from the government)—seeking to develop a capital supply program to equalize railroad access to investment funds with that of their rivals, and without capitulation to socialization.
- Agreement by railroads on a program of their urgent immediate needs in the way of improved governmental treatment—to avoid further deterioration of railroad plant, equipment and service, and assuring adequate railroad service in the event of any foreseeable military need—and energetic effort to get this program accepted.
- Enlistment of shippers and all public spirited citizens in support of the foregoing.

A dictatorship can operate efficiently with a relatively few smart men at the top. In a free country almost everybody has some say as to how the country is to be run. So it takes hundreds of thousands—millions even—of informed and dedicated people to enable a free country to operate efficiently.

If such shocks as the Cuban crisis do not induce us to act as we must act, if we want to survive, what will?

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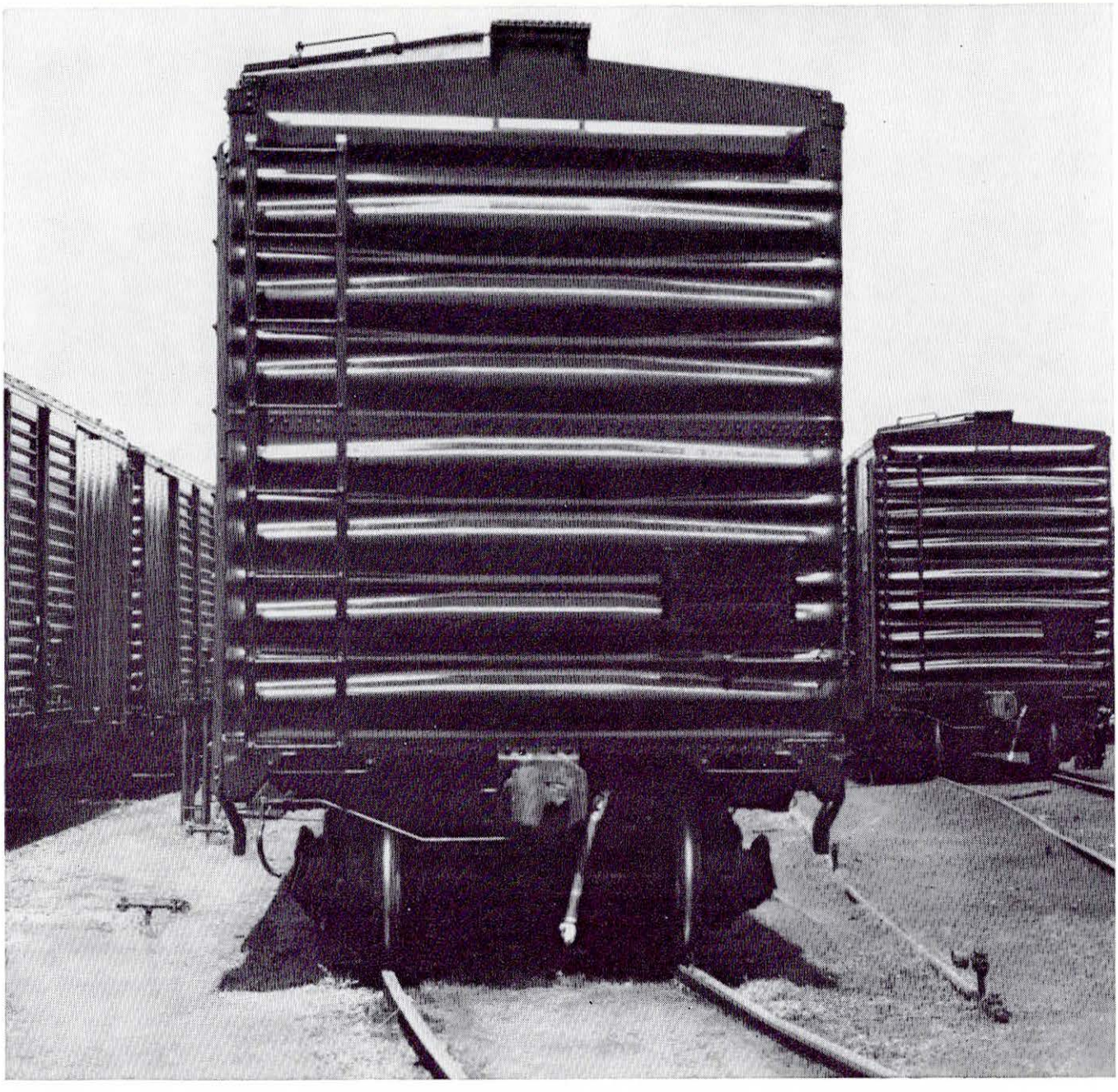

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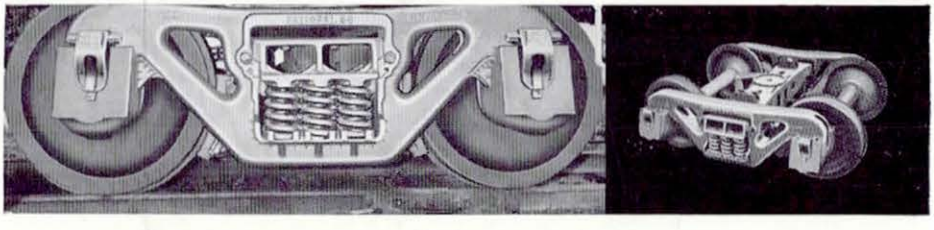

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